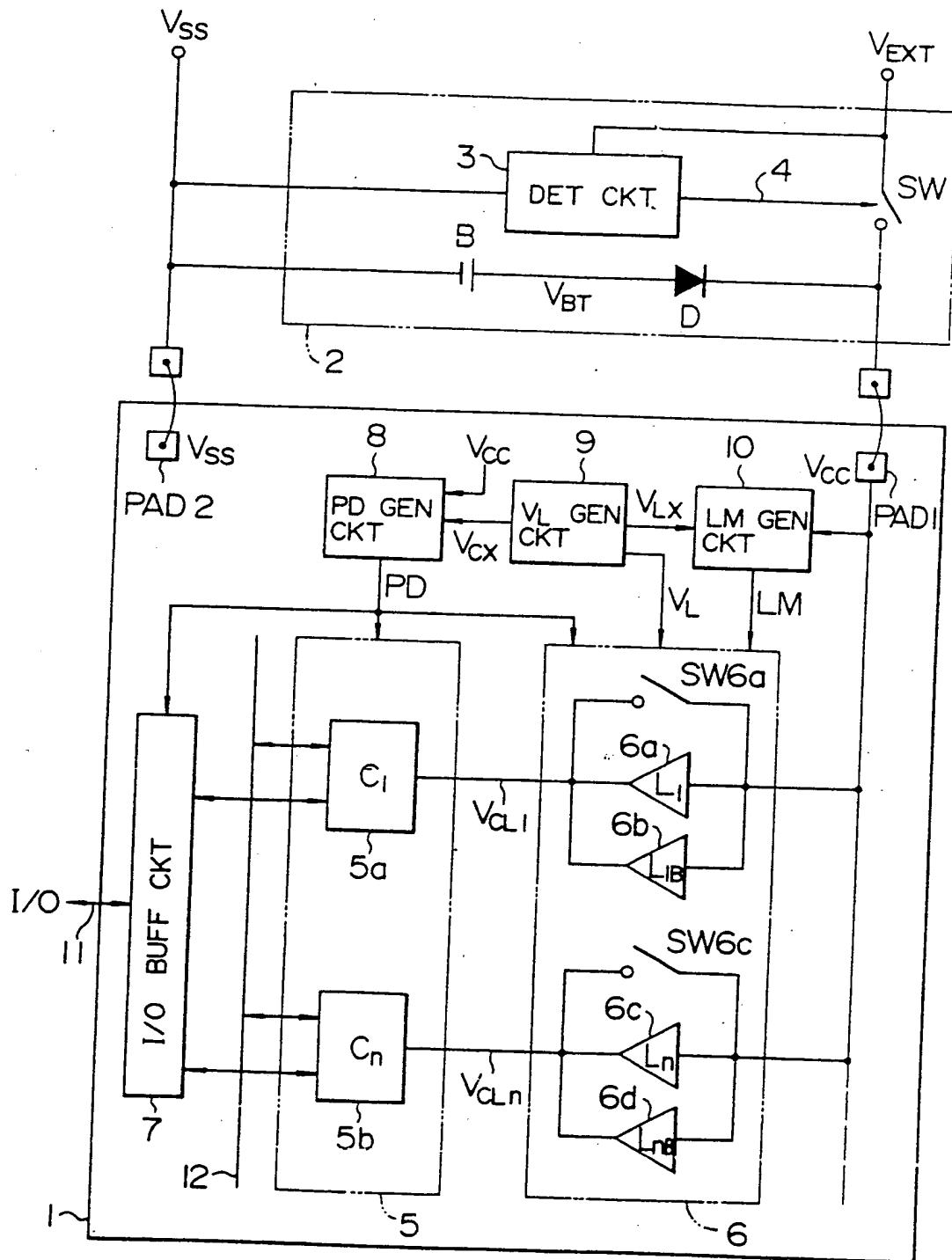


FIG. 1A.



03/356,4356 - 03/356,4356

FIG. 1B

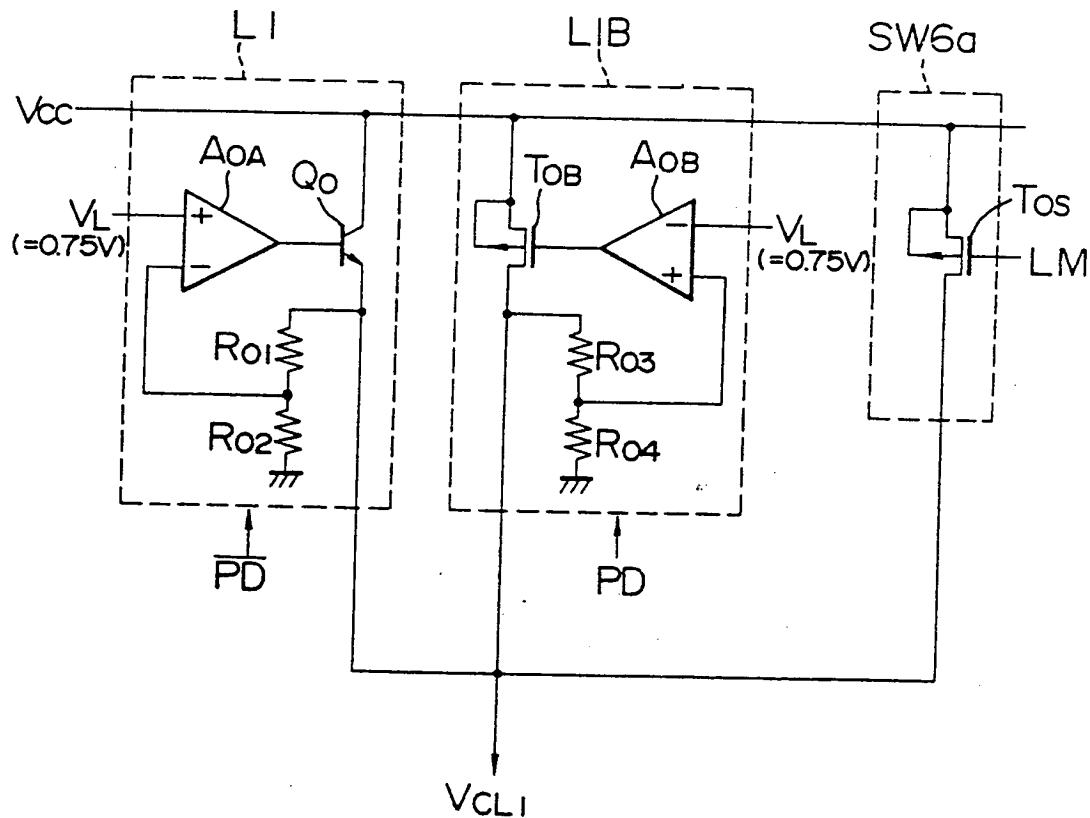


FIG. 1C

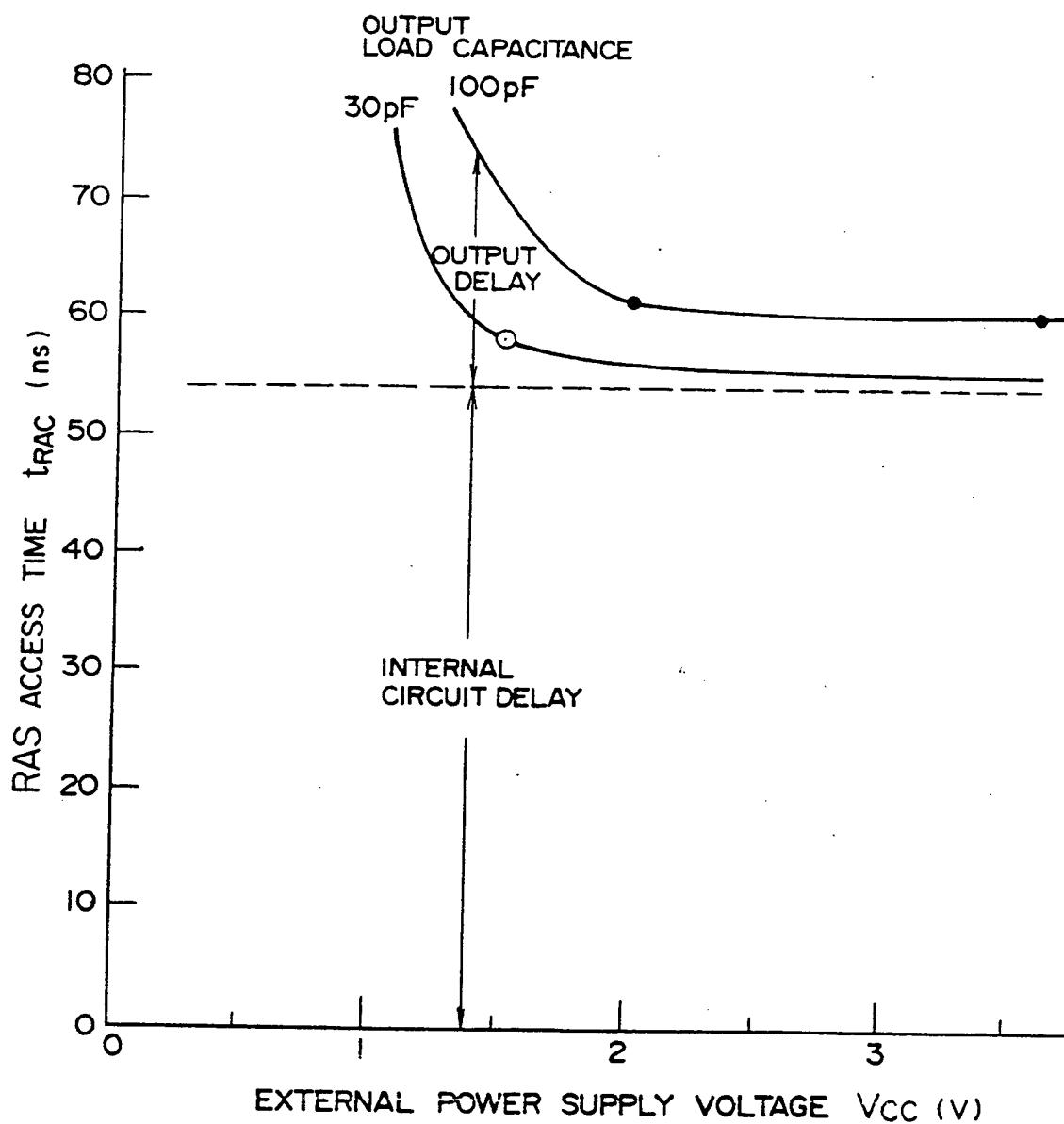


FIG. 2A

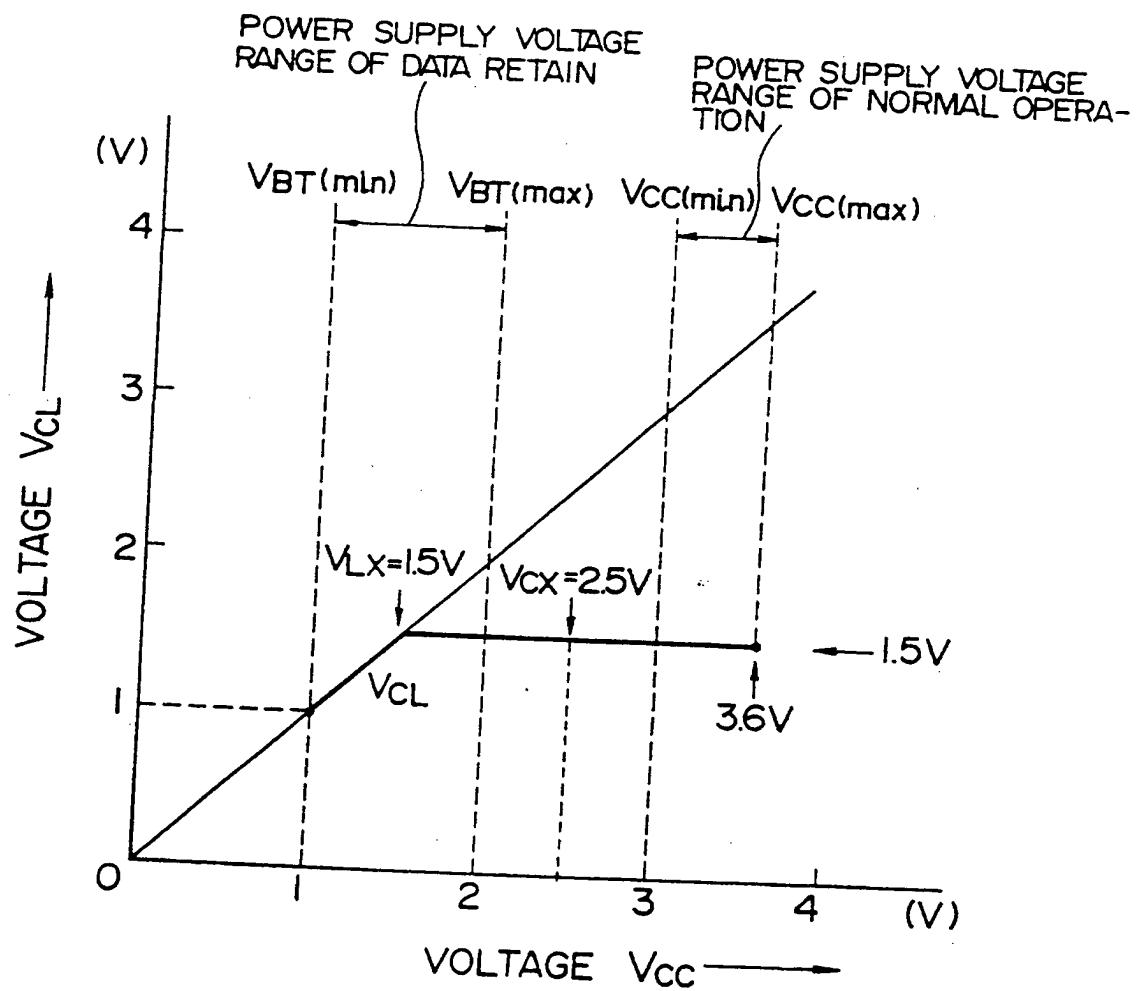


FIG. 2B

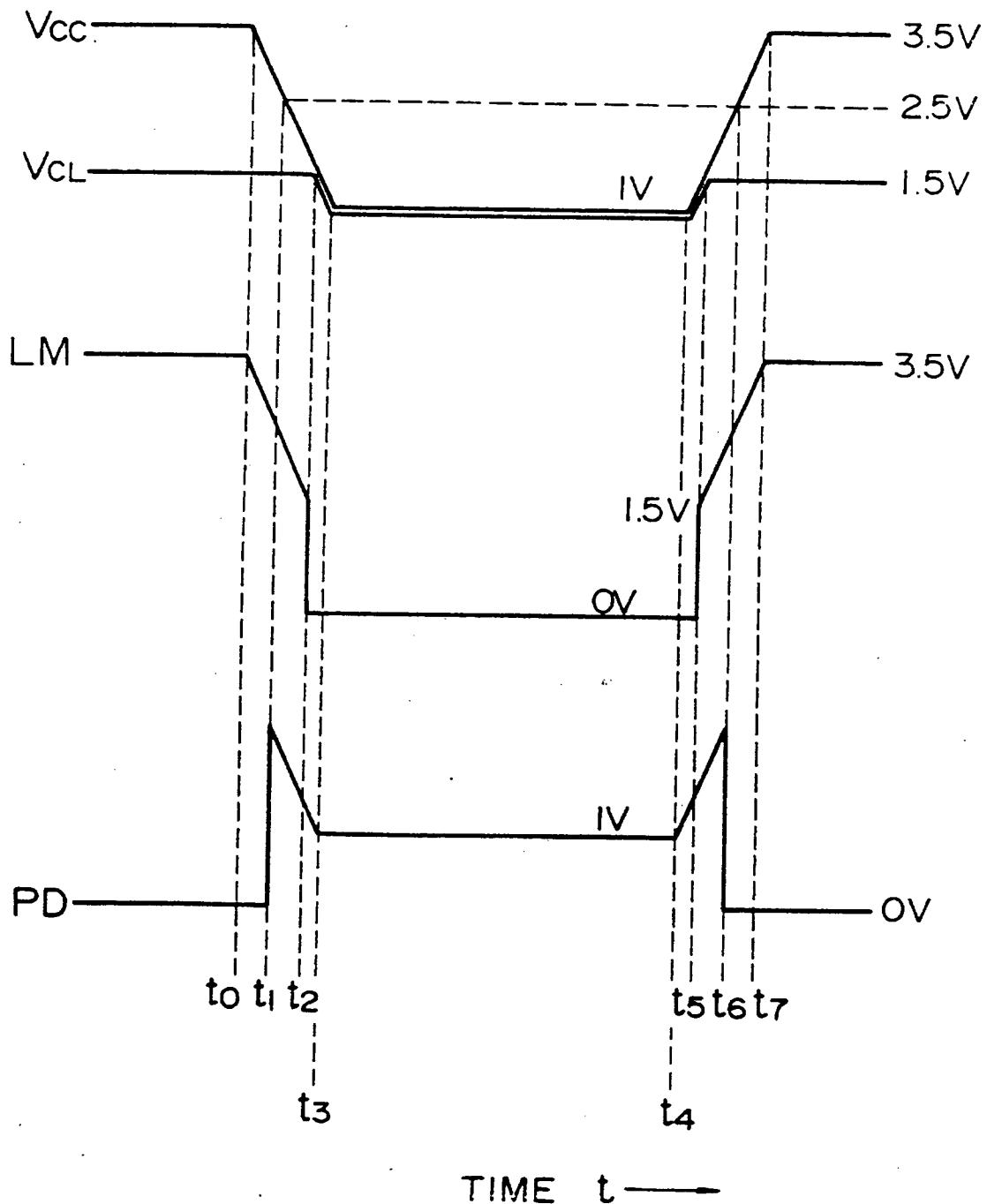


FIG. 2C

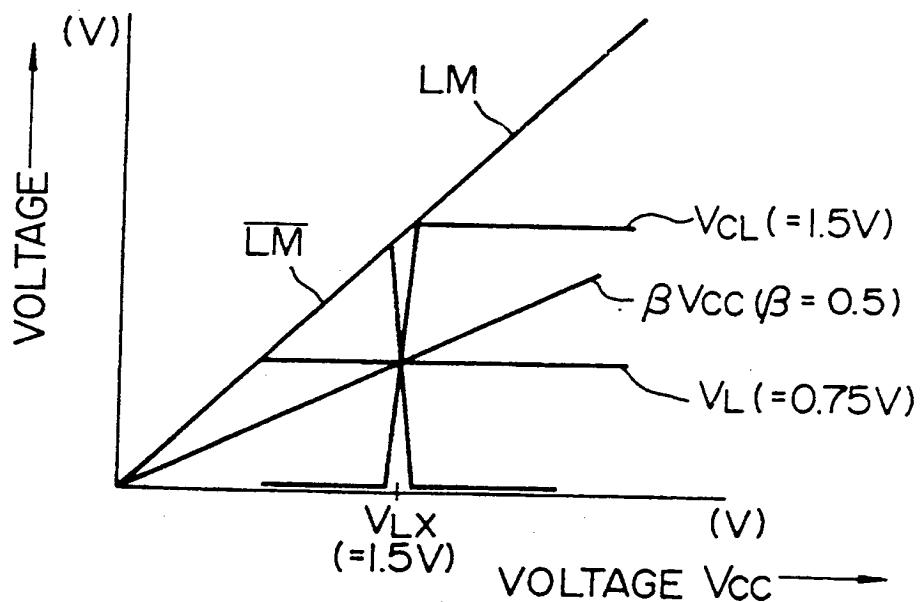


FIG. 2D

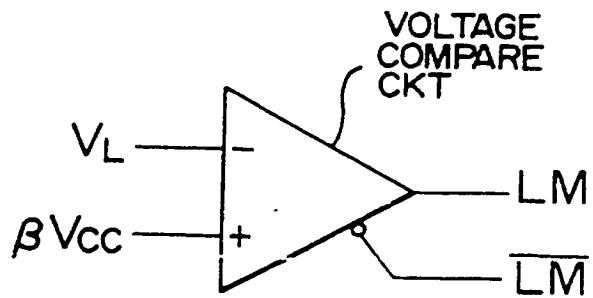


FIG. 2E

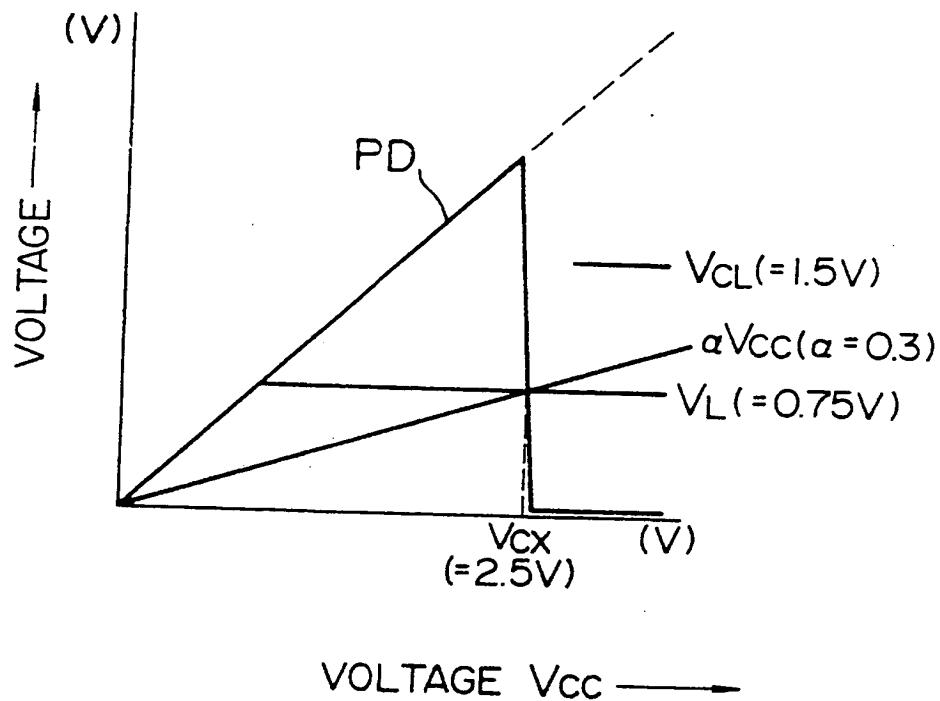


FIG. 2F

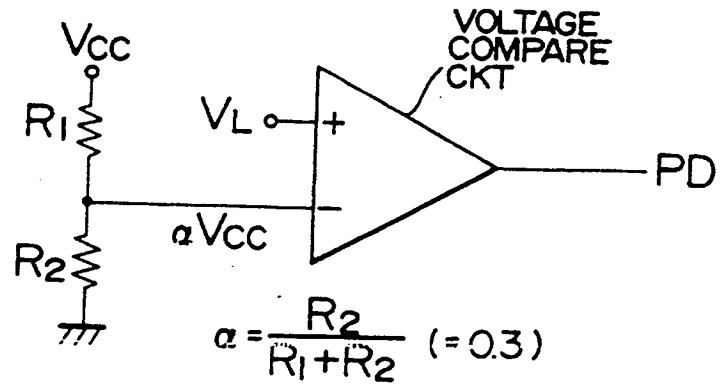


FIG. 3A

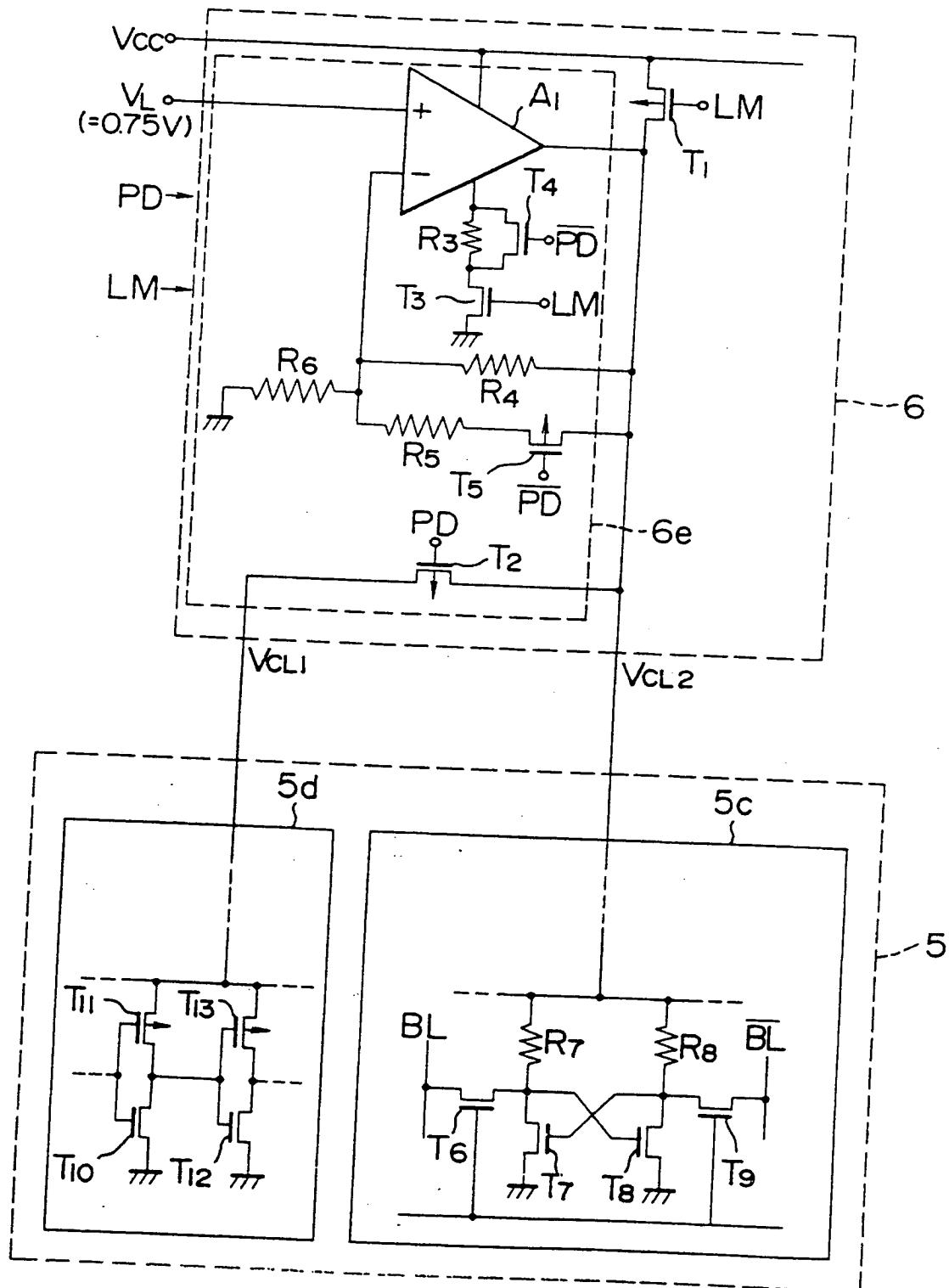


FIG. 3B

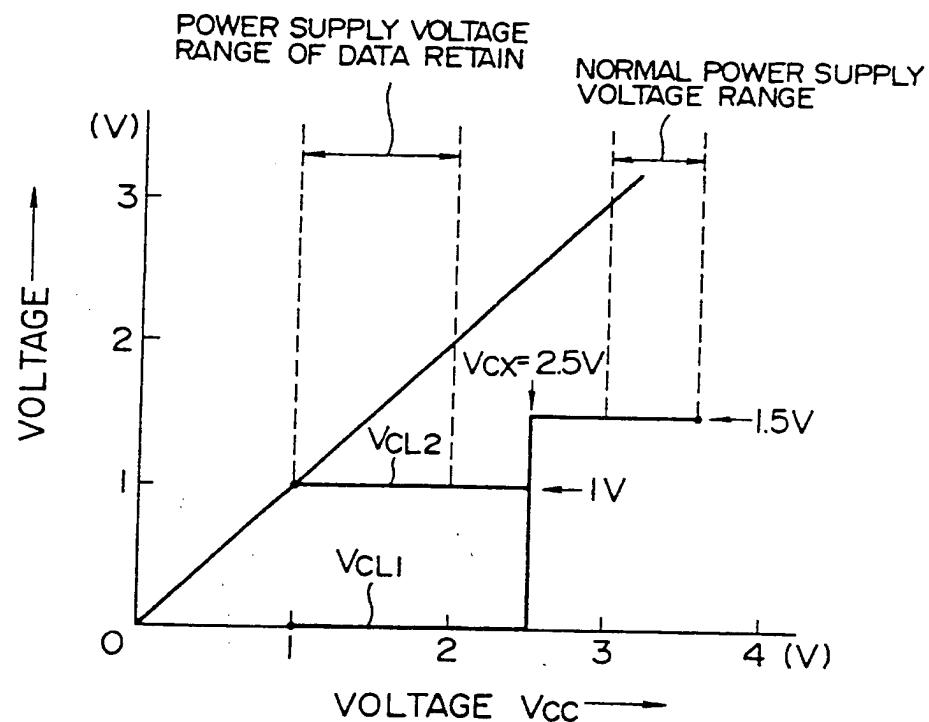


FIG. 3C

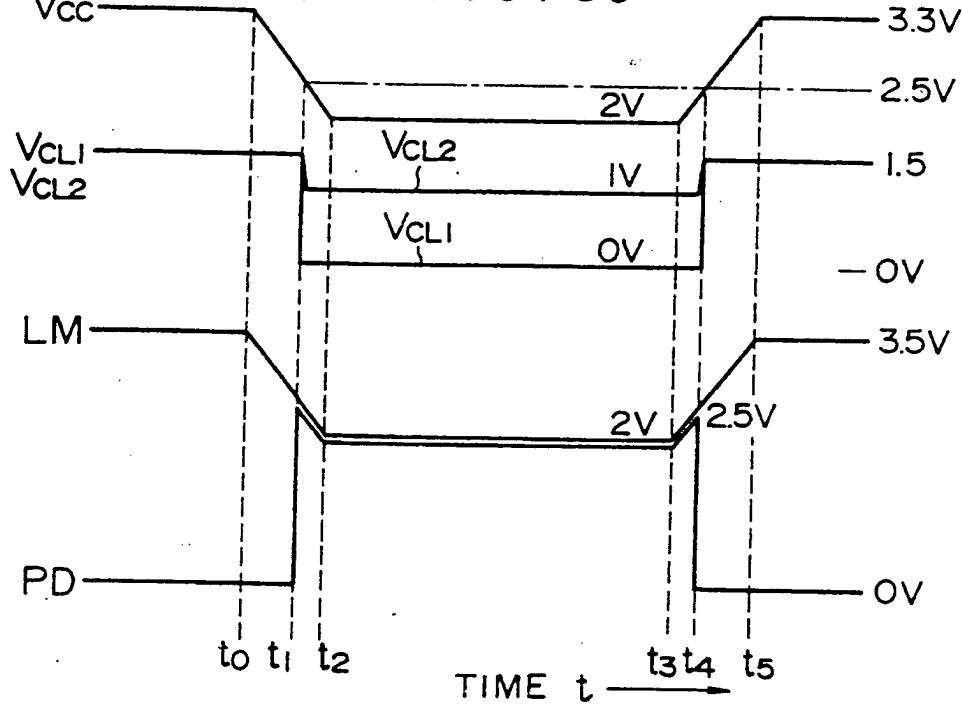


FIG. 4A

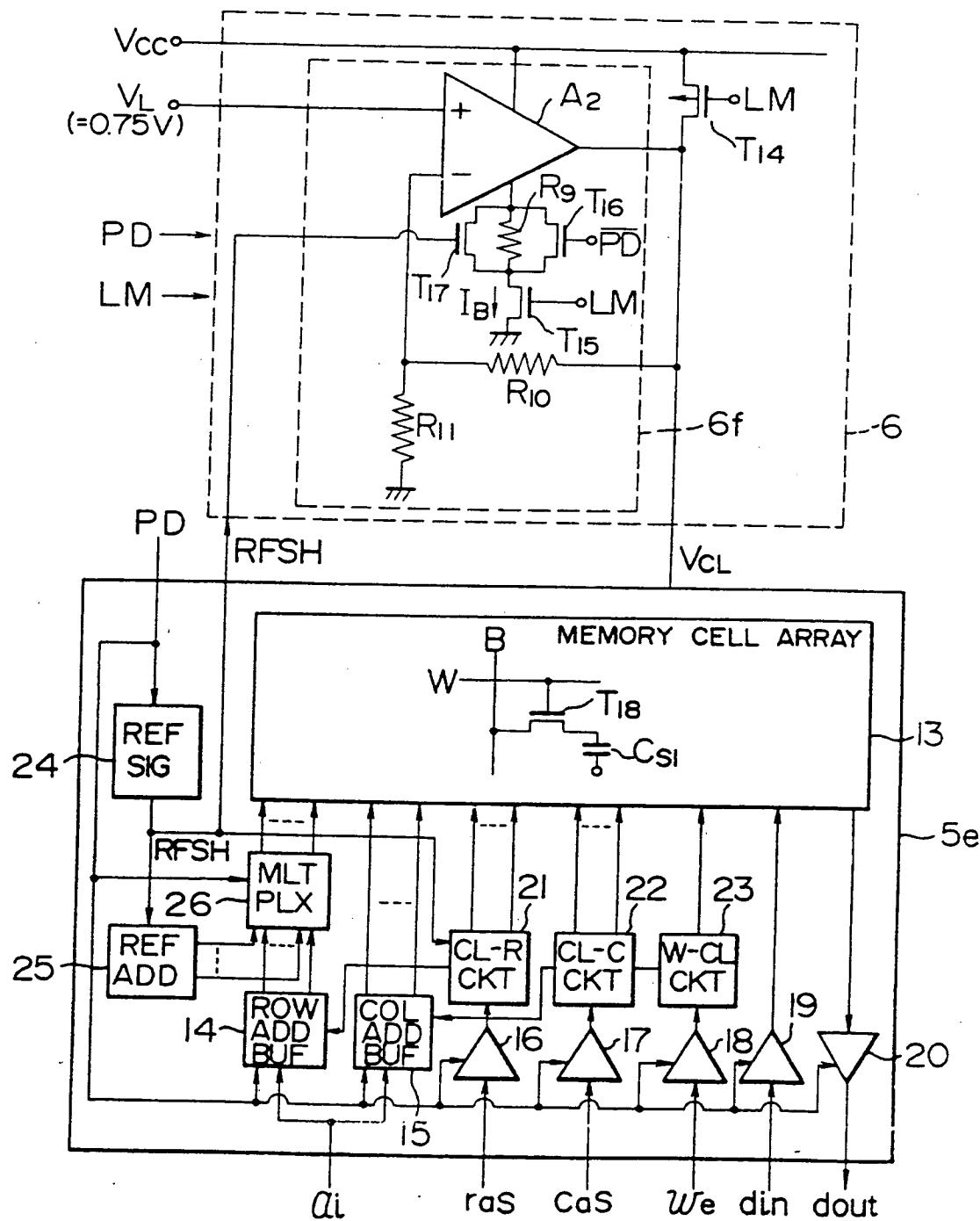


FIG. 4B

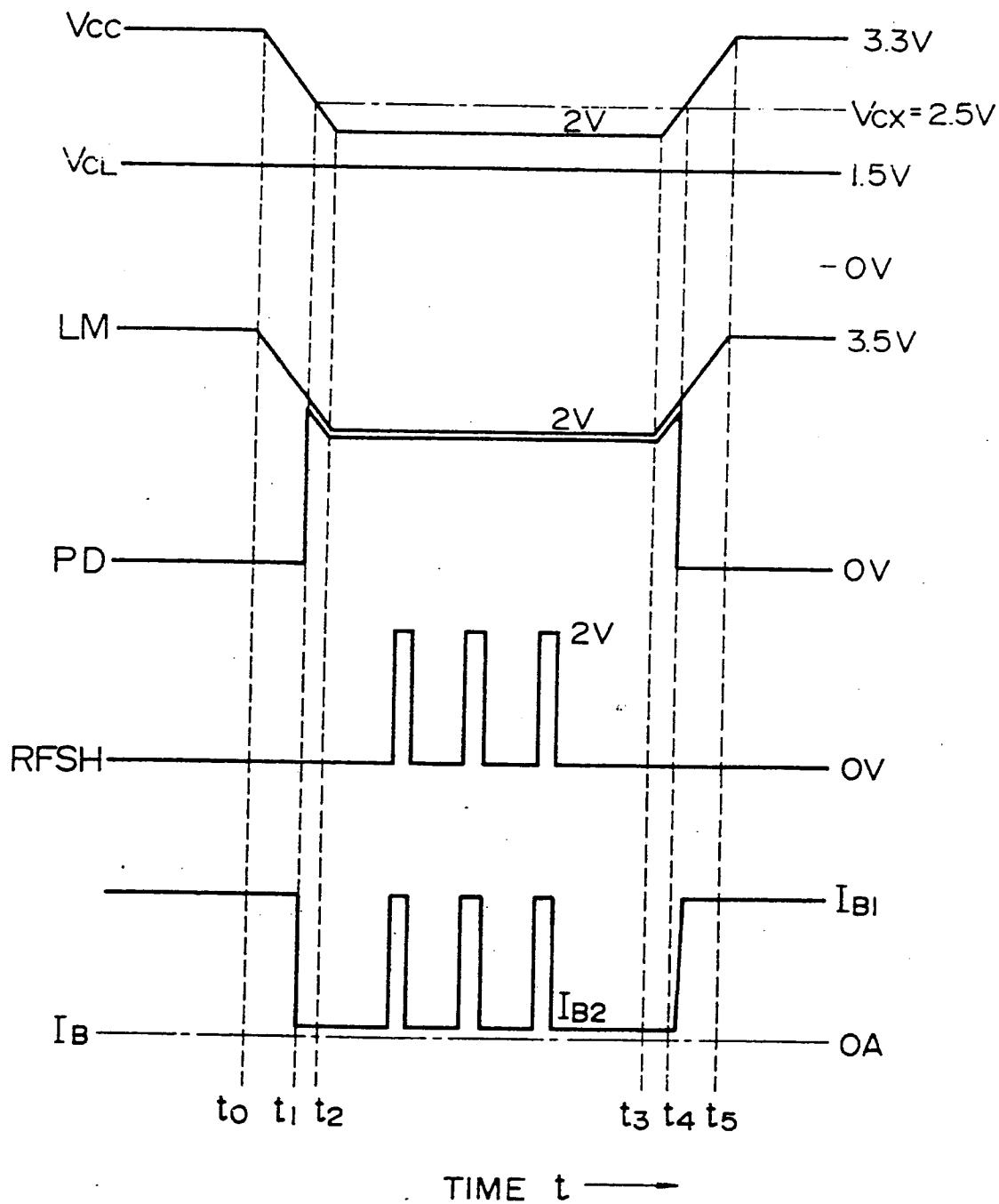


FIG. 5A

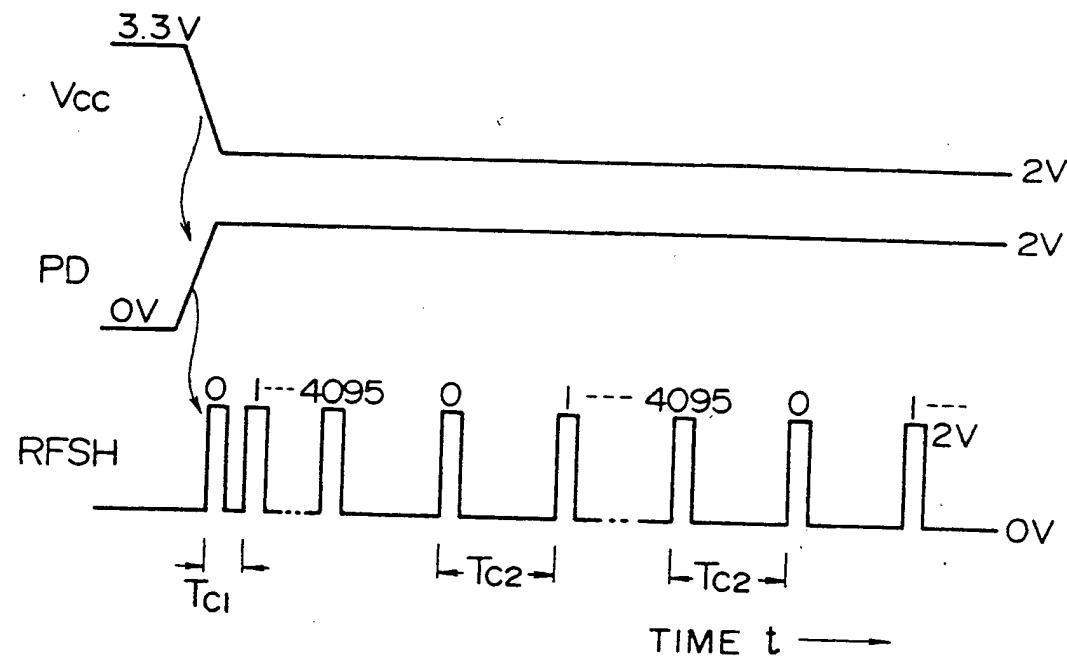


FIG. 5B

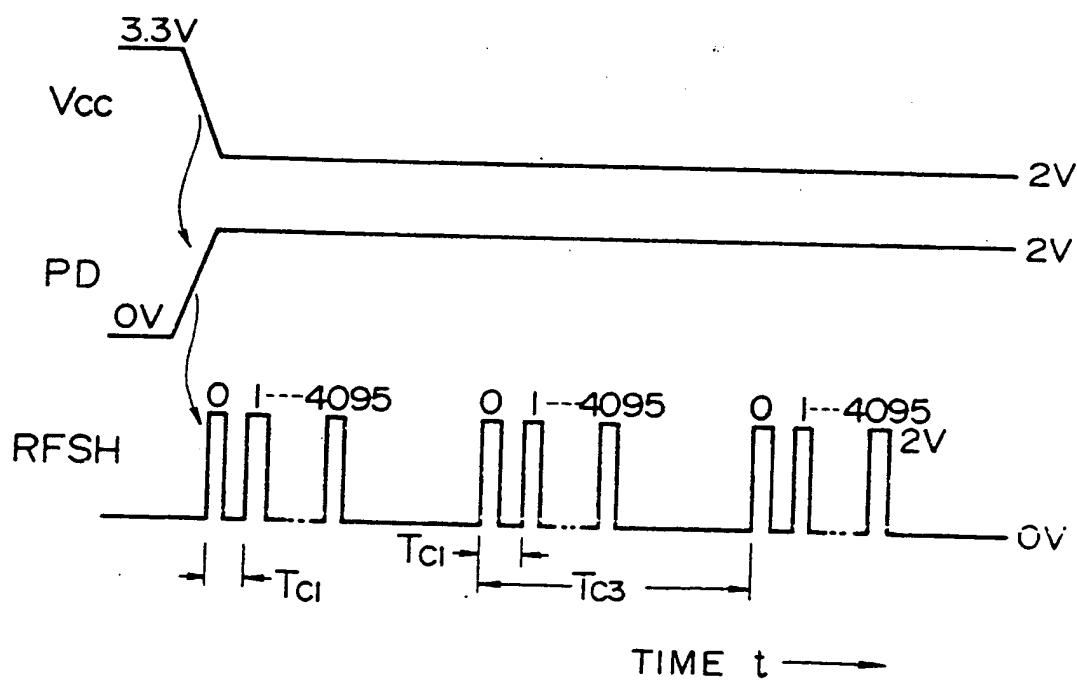


FIG. 6

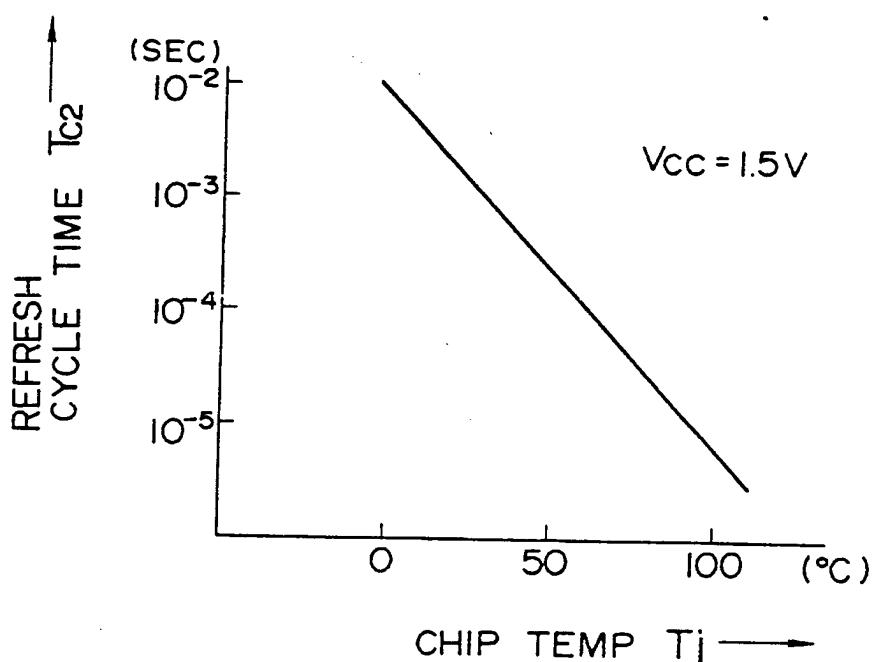


FIG. 7

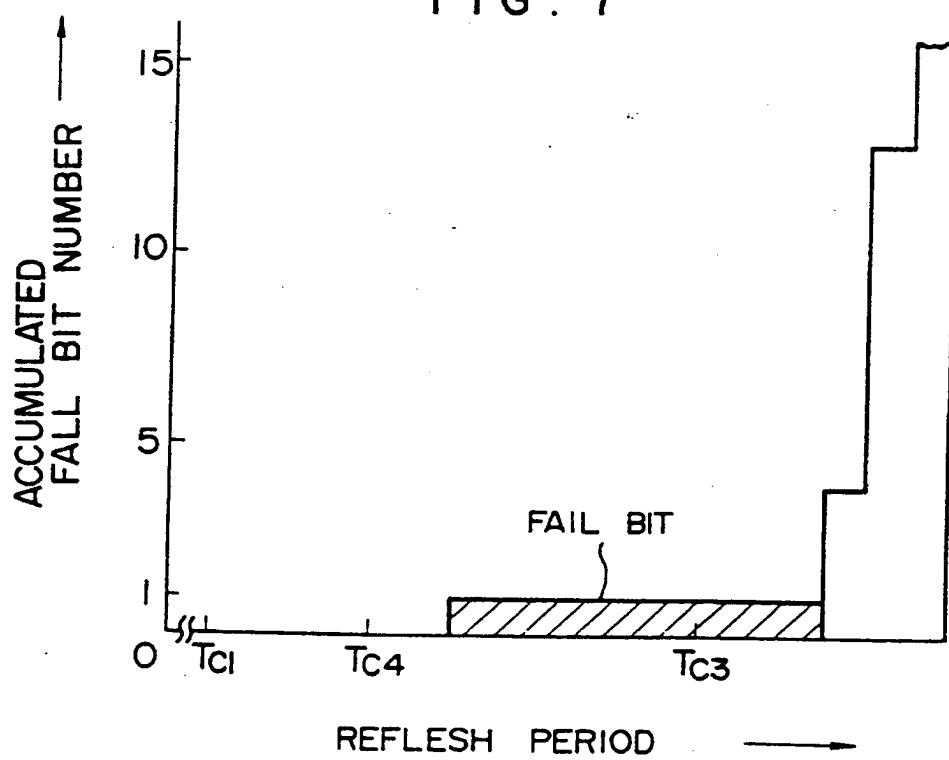


FIG. 8A

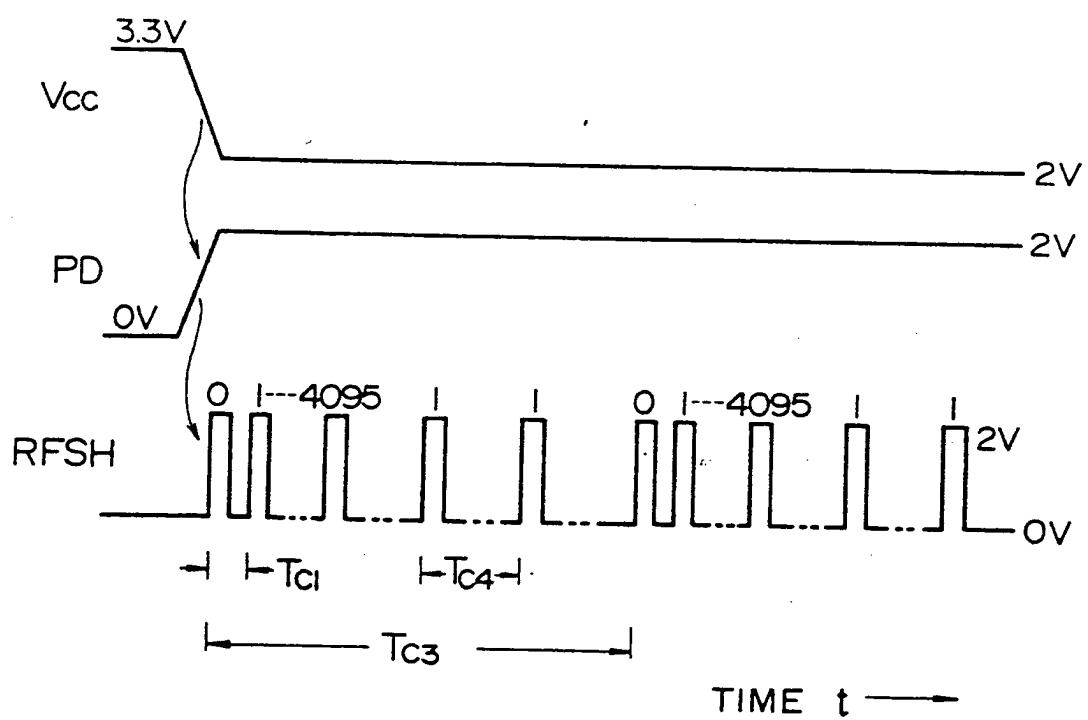


FIG. 8B

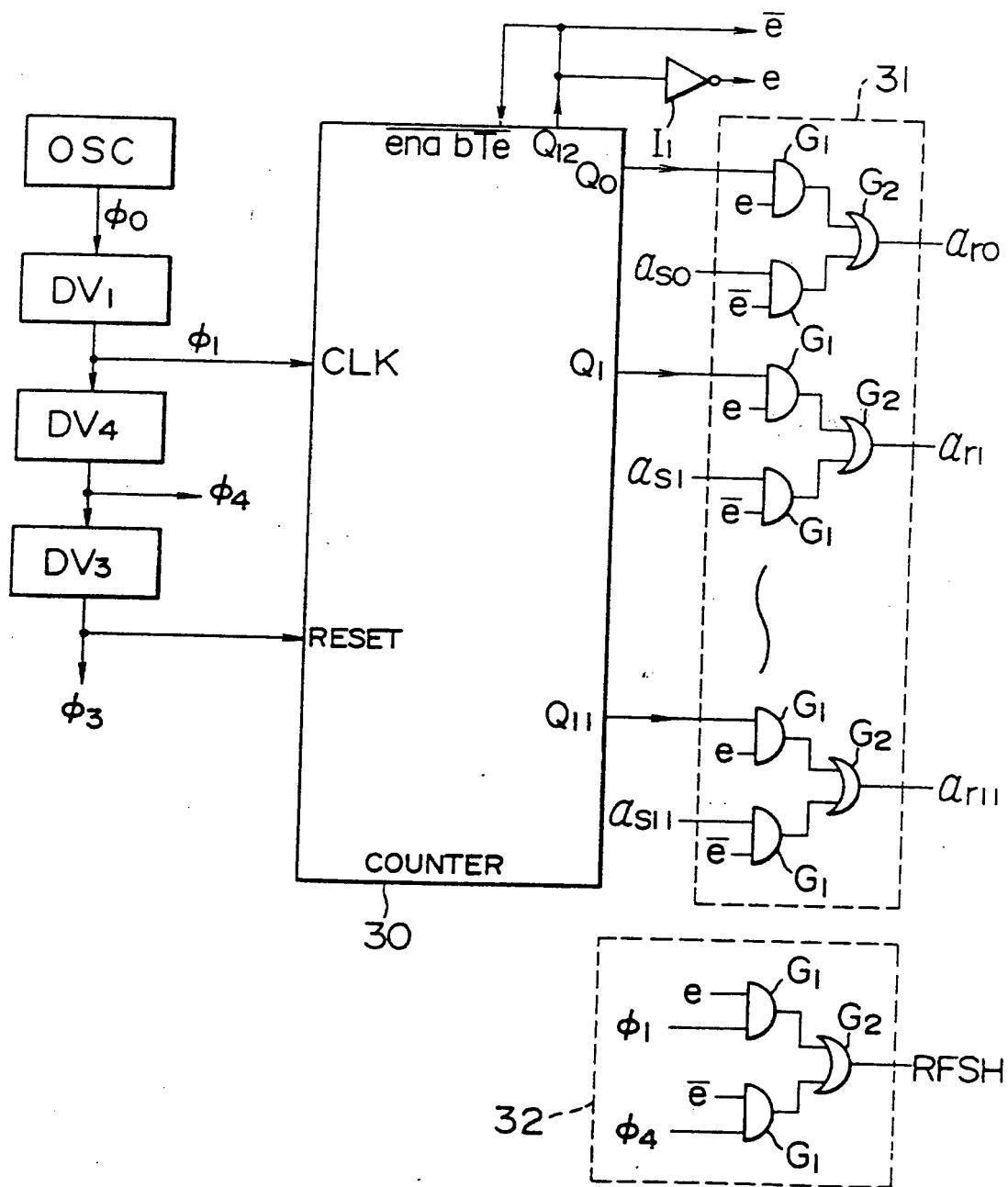


FIG. 8C

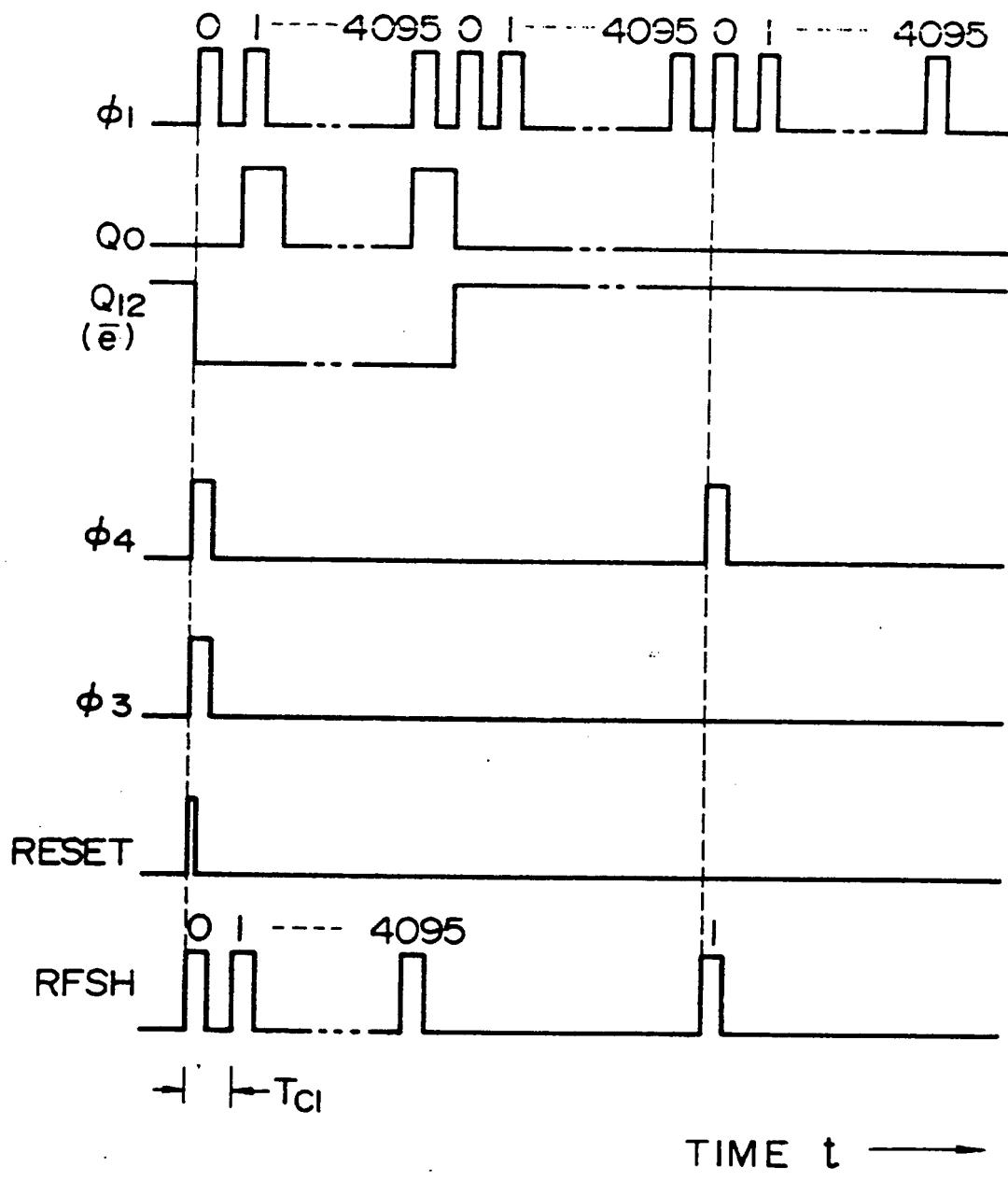


FIG. 9

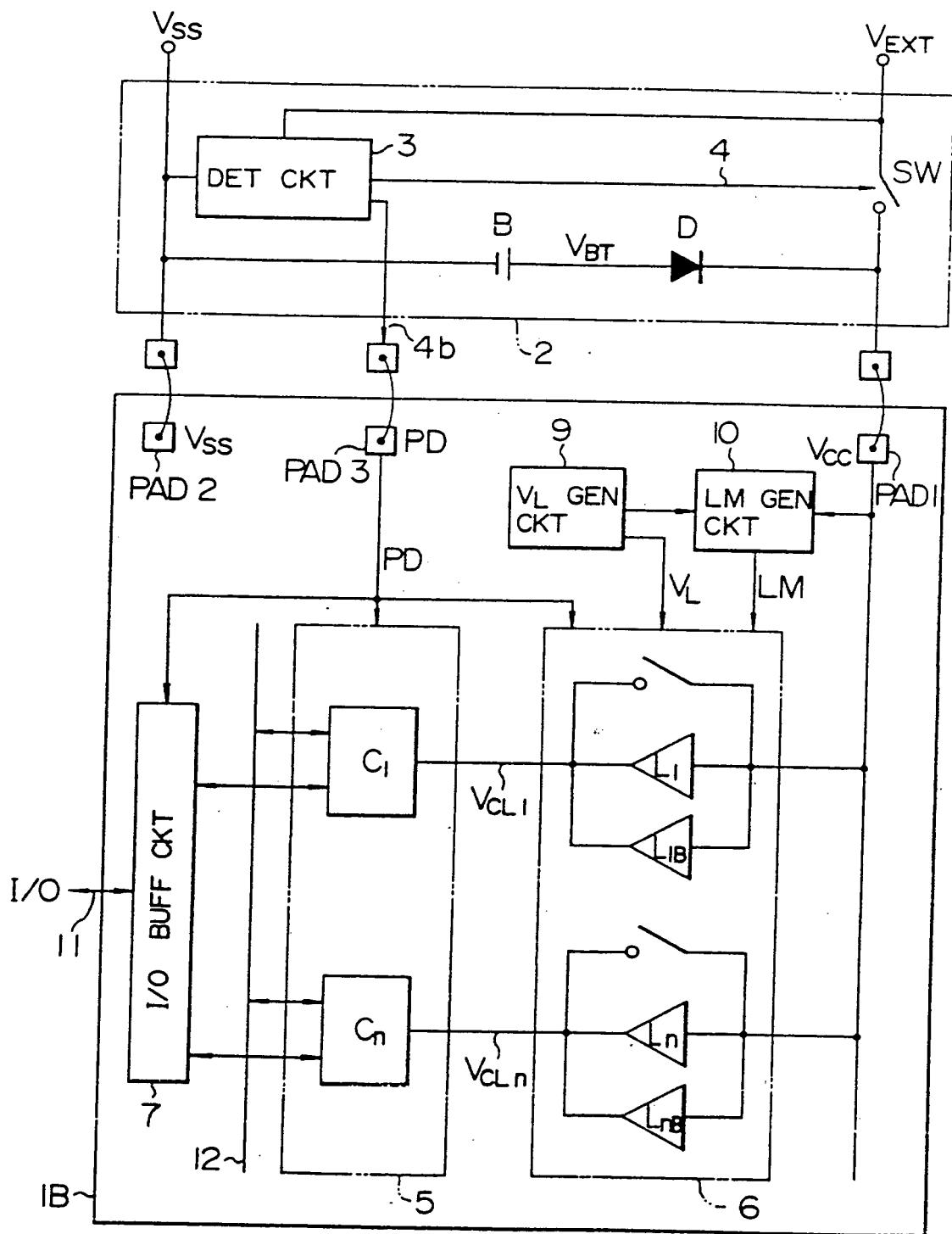


FIG. 10A

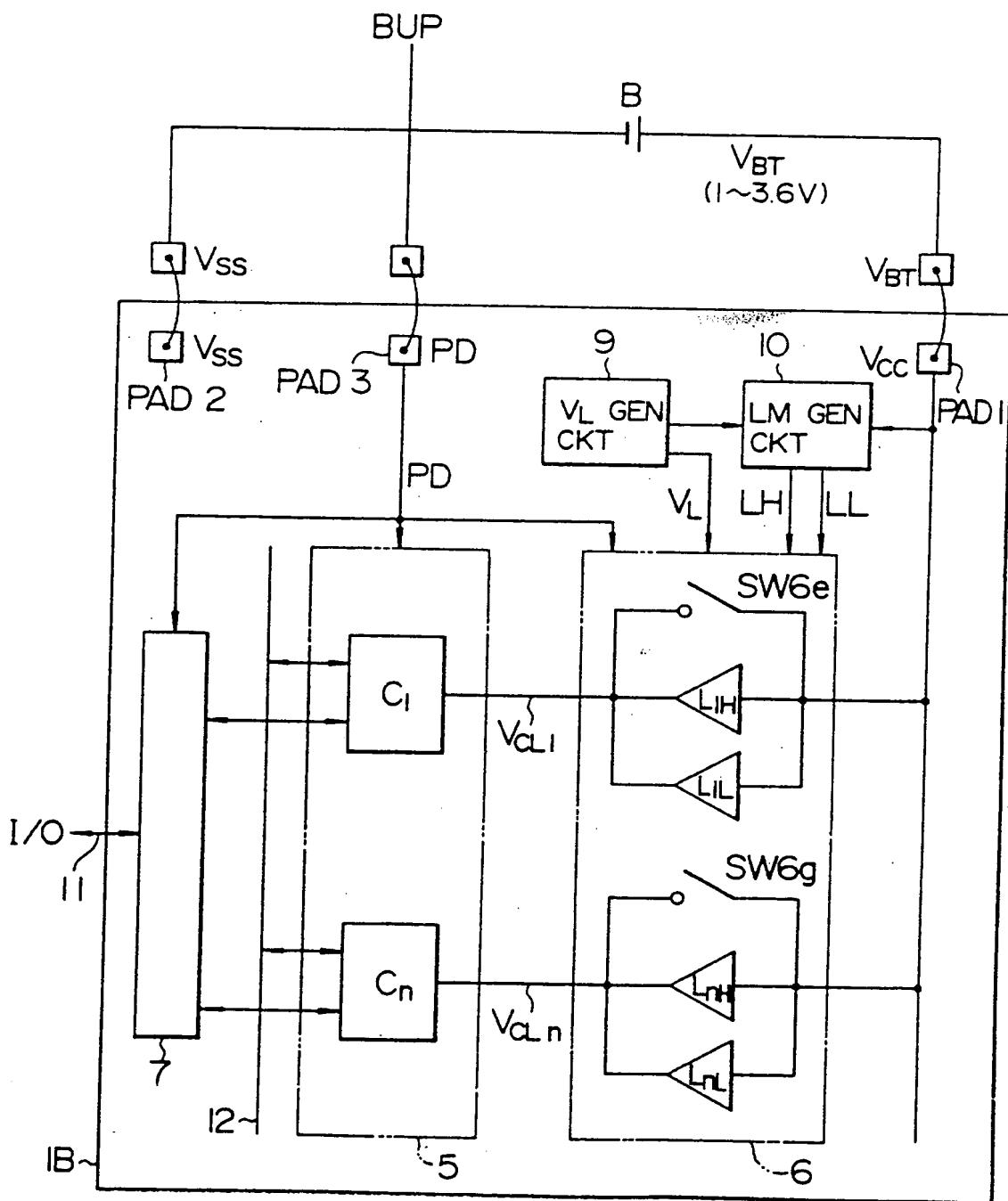


FIG. 10B

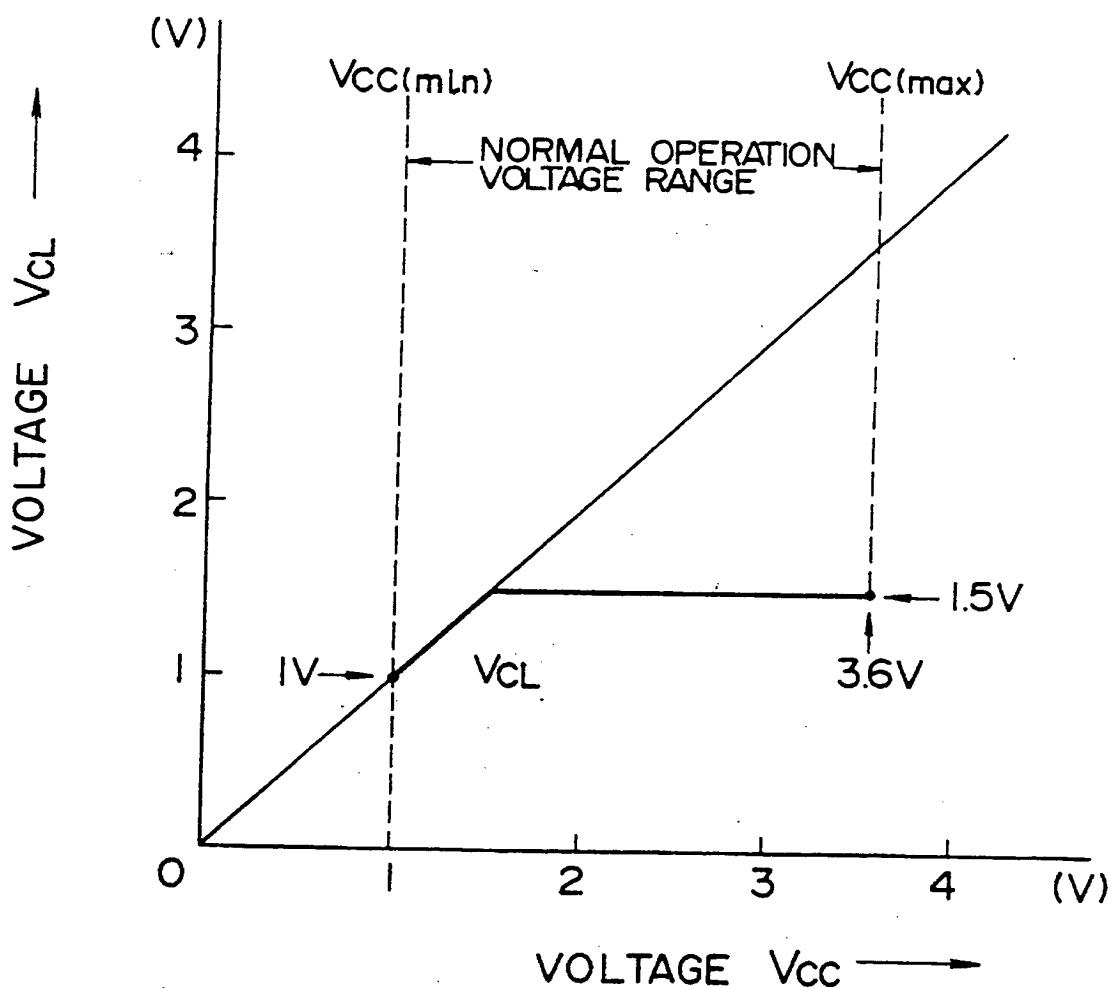


FIG. 10C

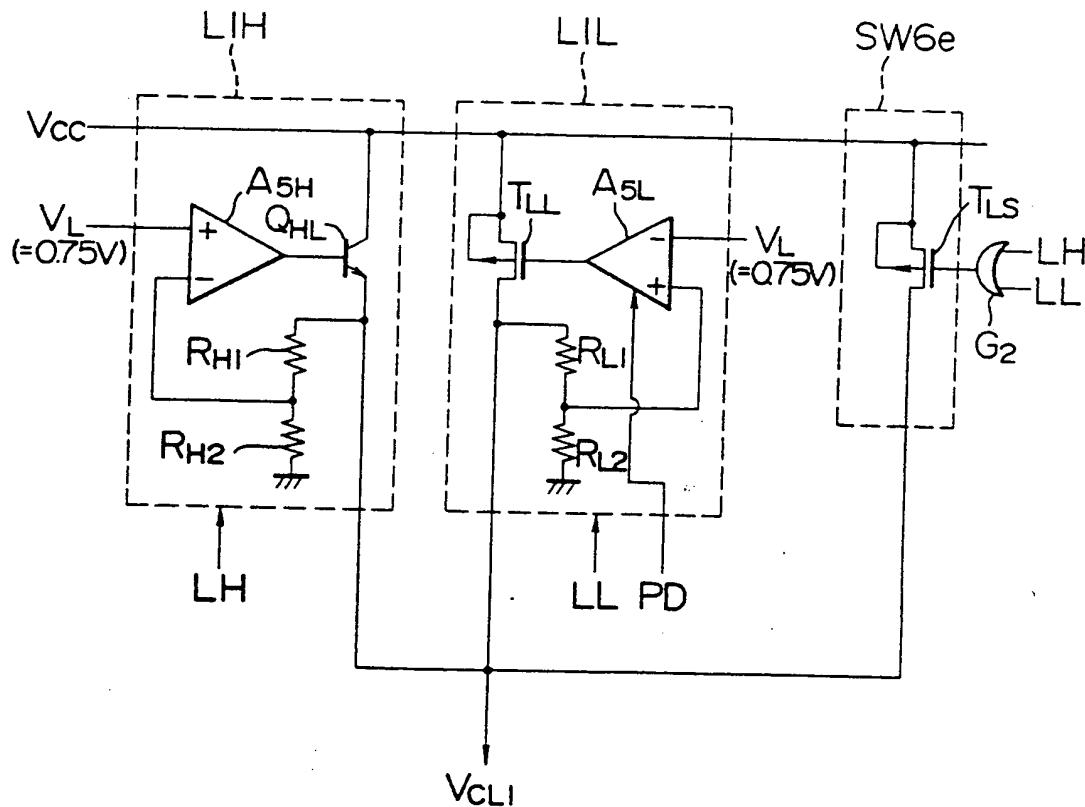


FIG. 11A

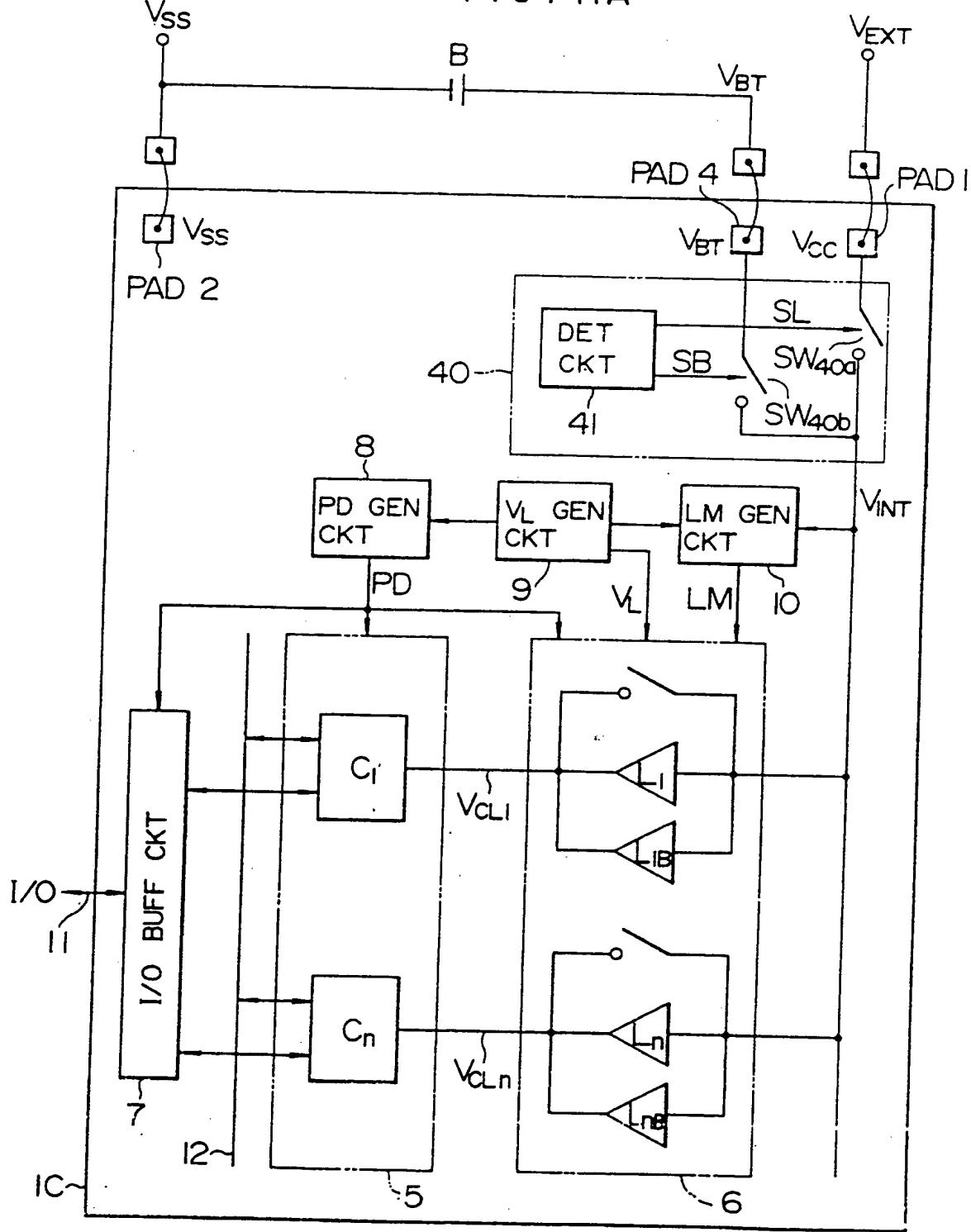


FIG. II B

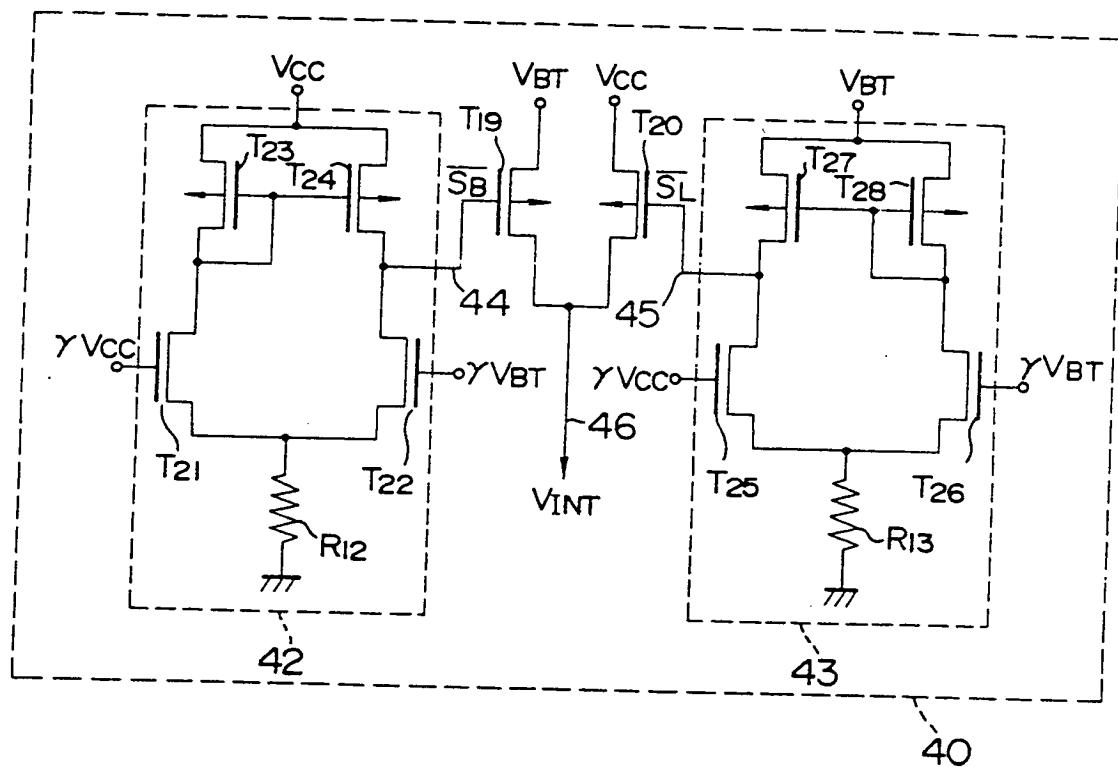


FIG. II C

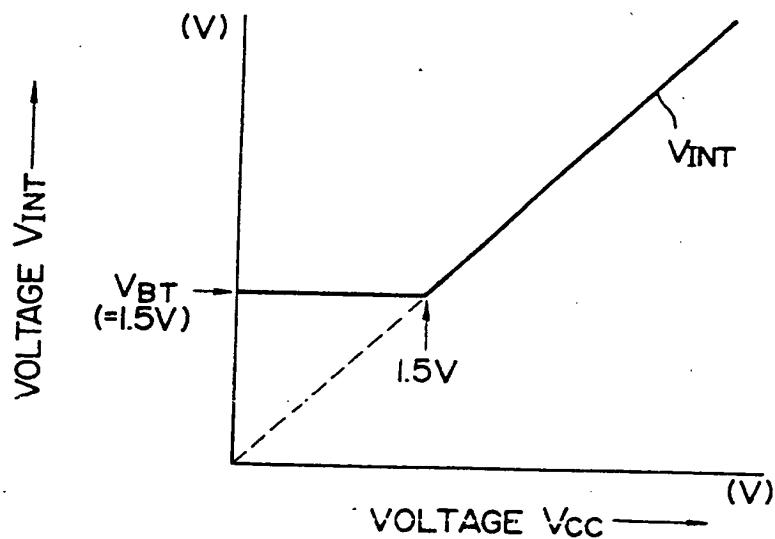


FIG. 12A

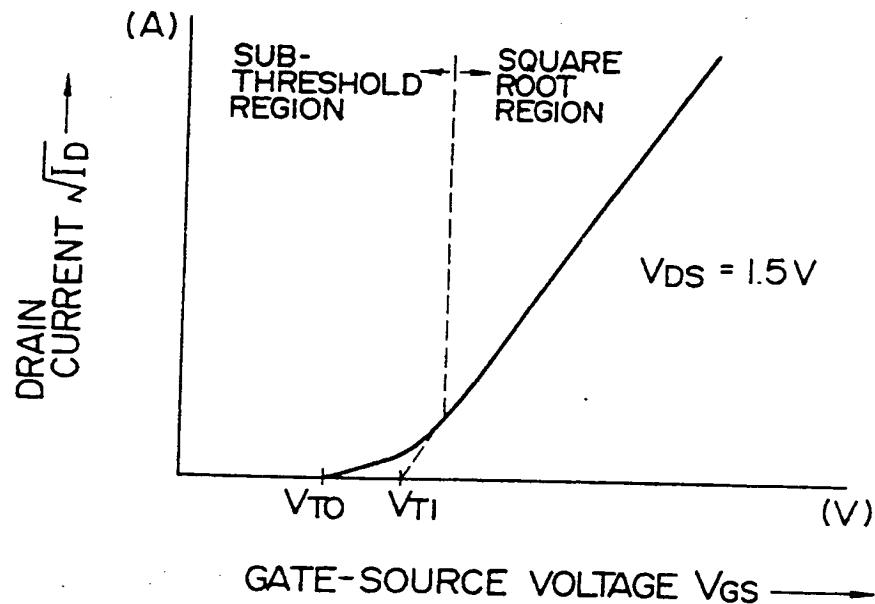


FIG. 12B

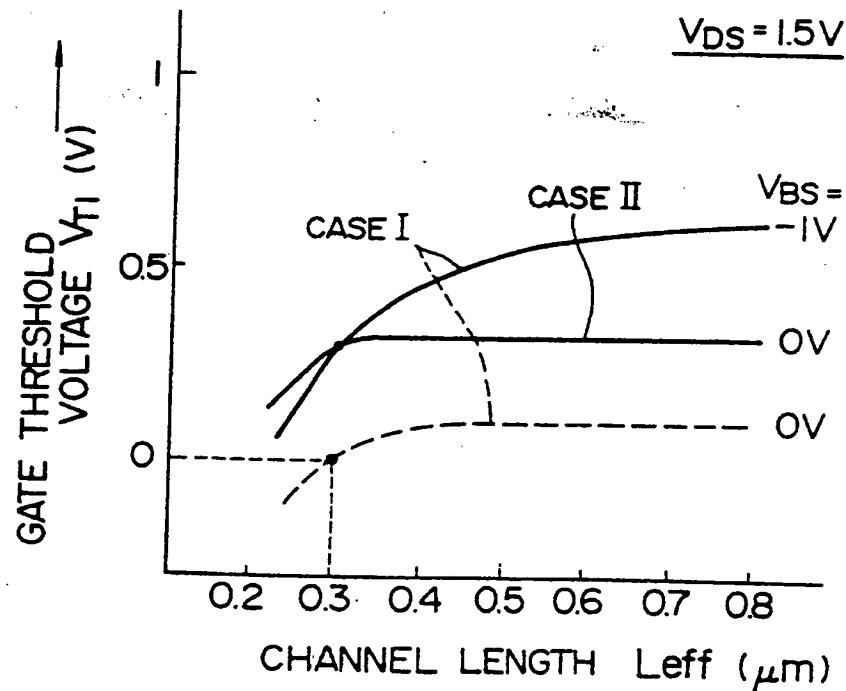


FIG. 13

| | | N CHANNEL MOS - FET | P CHANNEL MOS - FET |
|---|--------------|------------------------|------------------------|
| GATE OXIDE THICKNESS t_{ox} (nm) | | 6.5 (5~8) | 6.5 (5~8) |
| EFFECTIVE CHANNEL LENGTH L_{eff} (μ m) | | 0.3 (0.2~0.4) | 0.3 (0.2~0.4) |
| GATE THRESHOLD VOLTAGE | V_{TO} (V) | 0.1 (0~0.2) | -0.1 (-0.2~0) |
| | V_{TI} (V) | 0.3 (0.2~0.4) | -0.3 (-0.4~-0.2) |

FIG. 14A

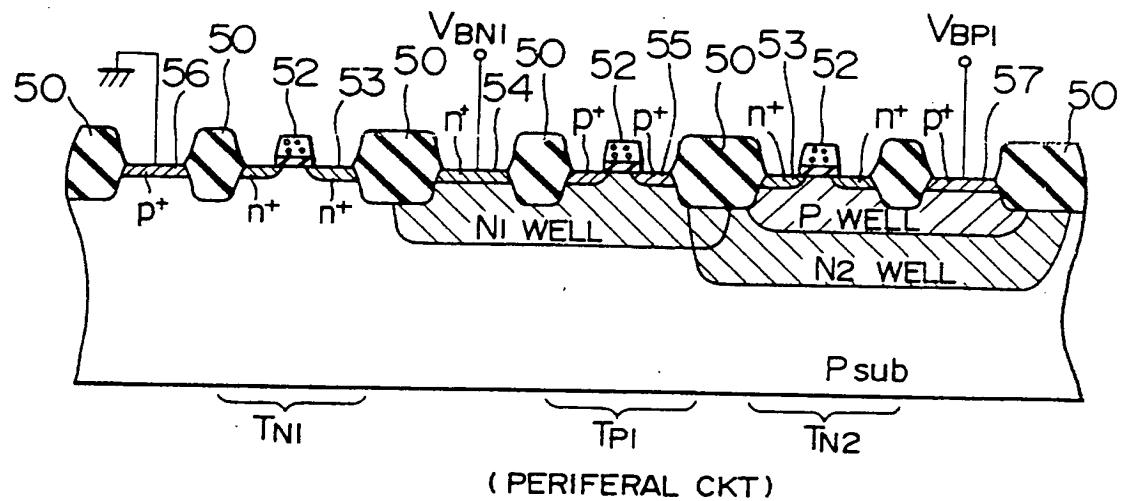


FIG. 14B

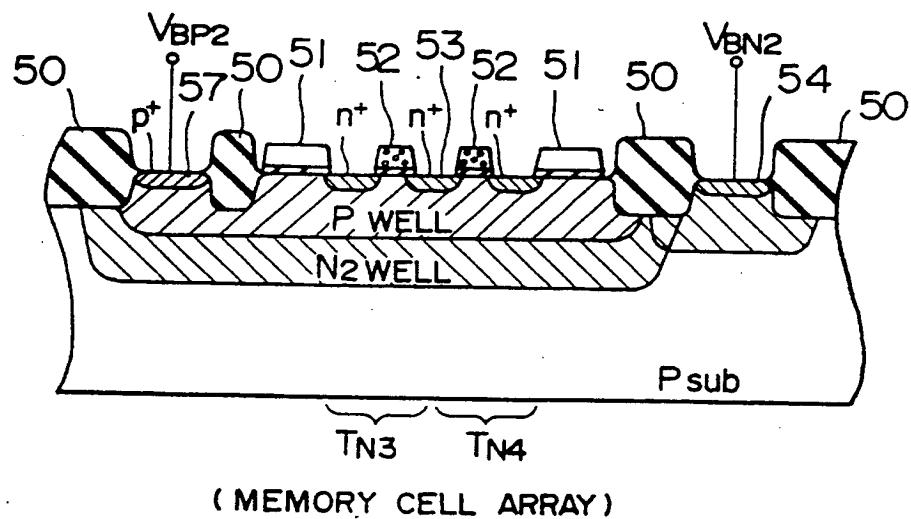


FIG. 15A

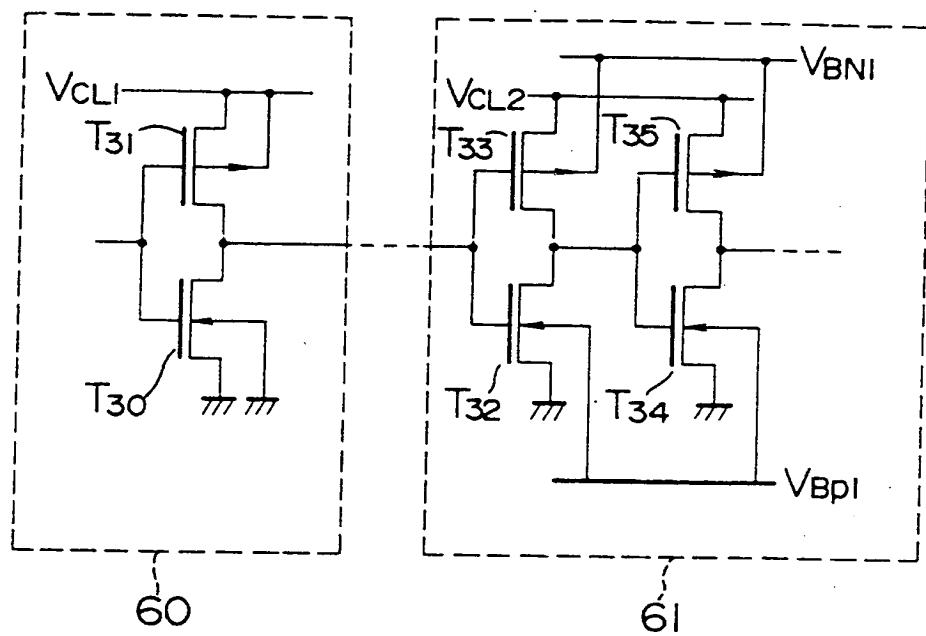


FIG. 15B

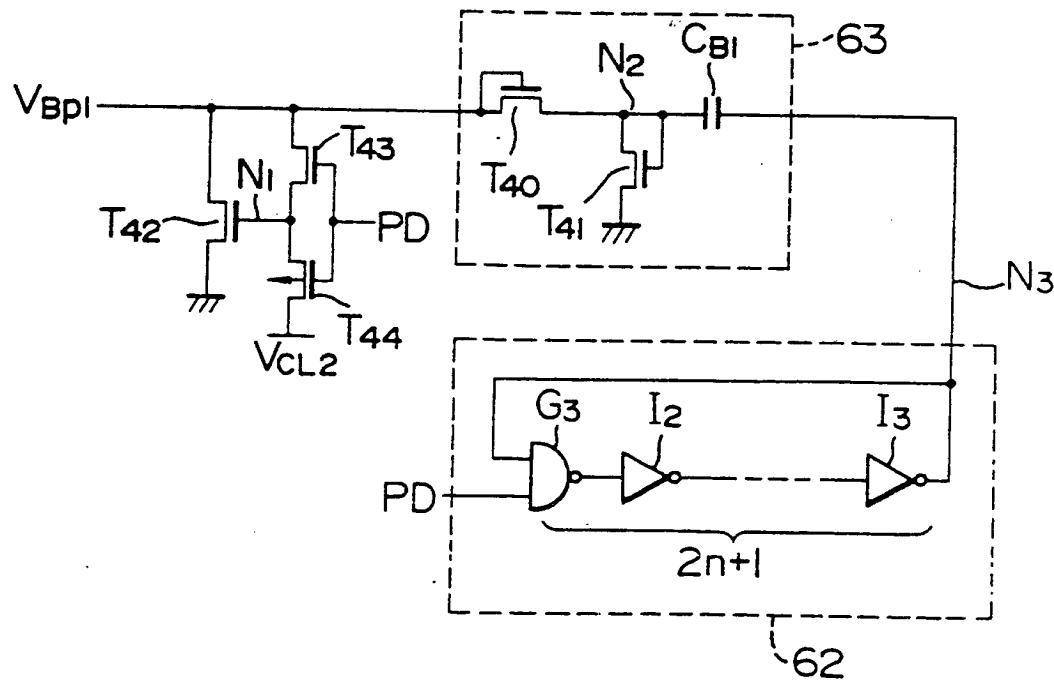
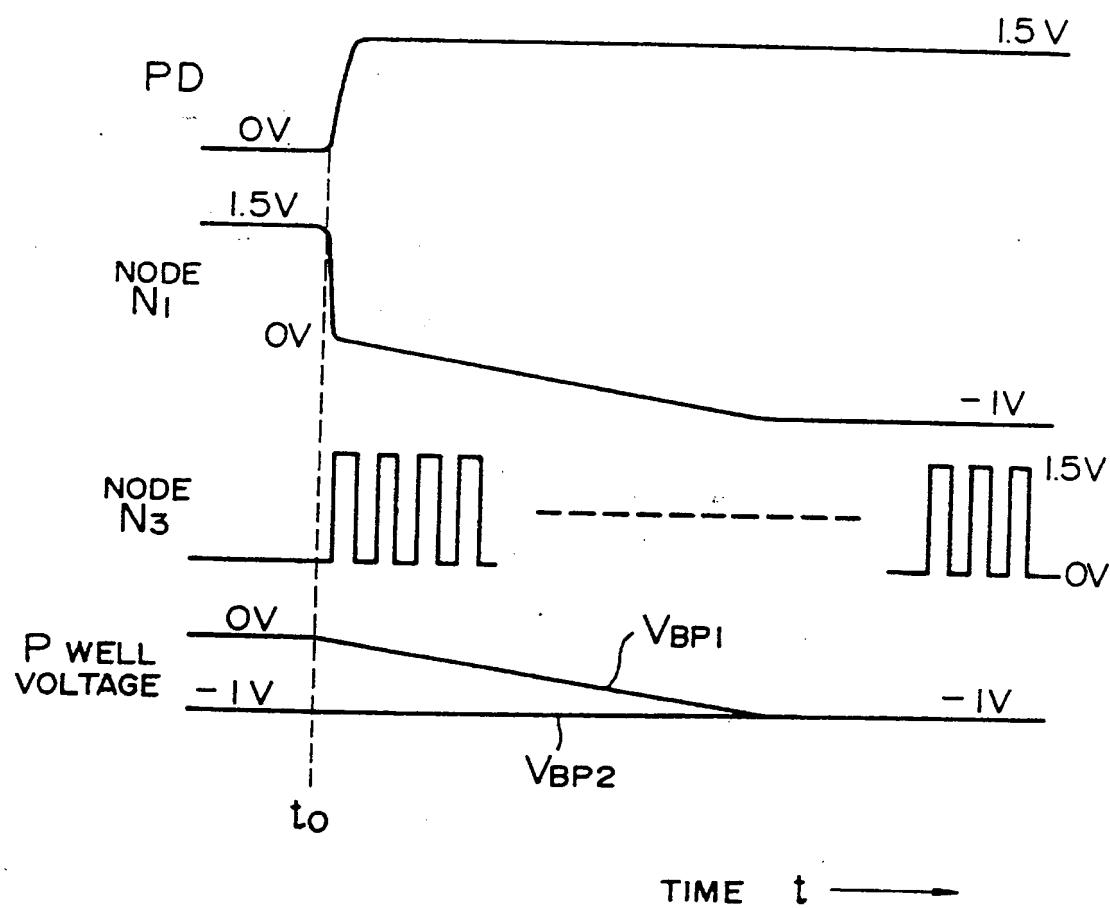


FIG. 15C



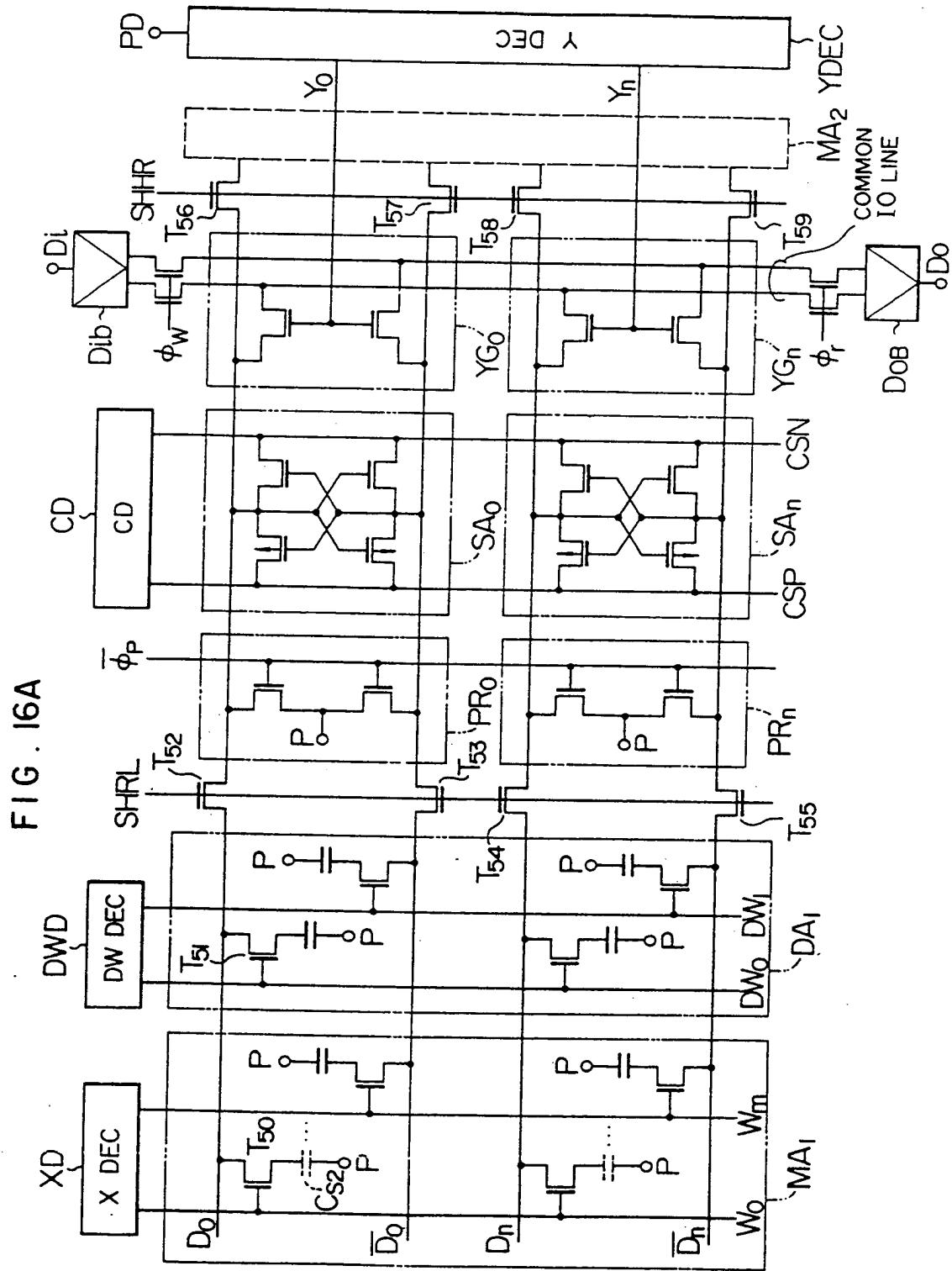


FIG. 16B

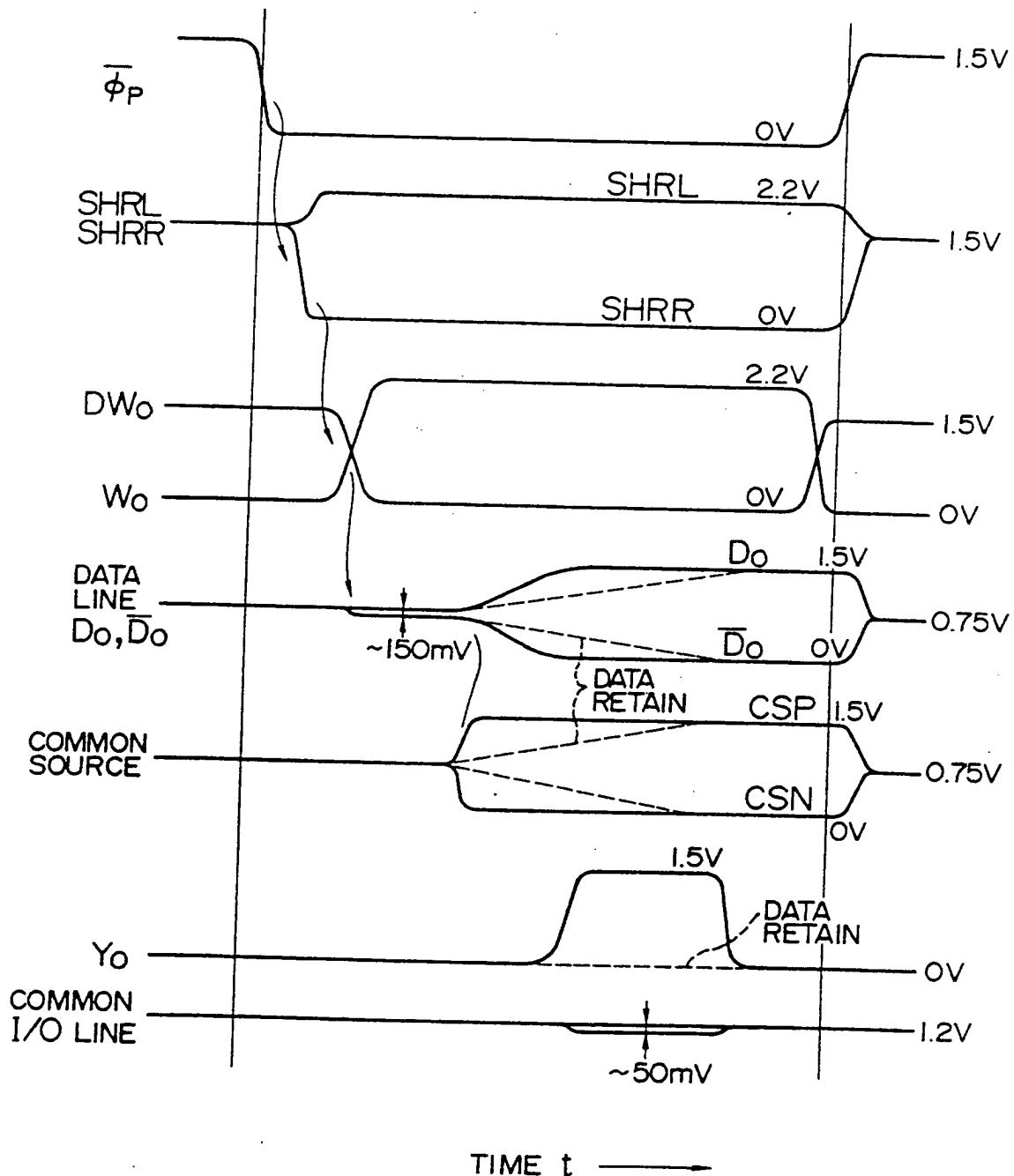


FIG. 17A

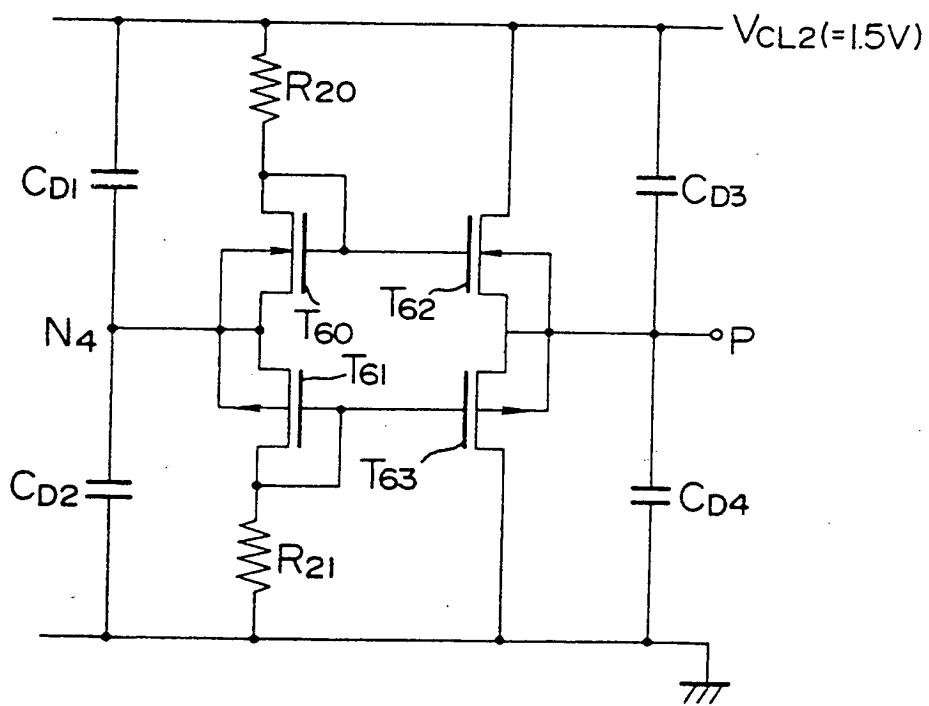


FIG. 17B

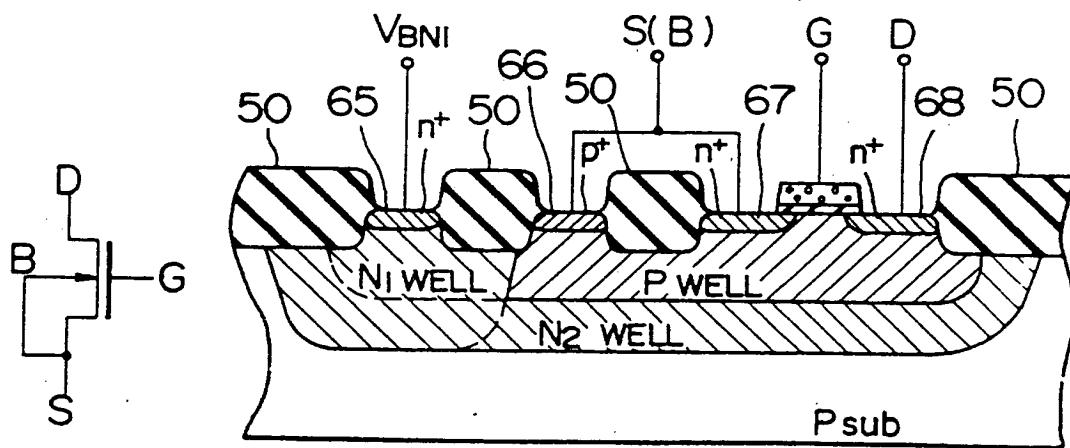


FIG. 18A

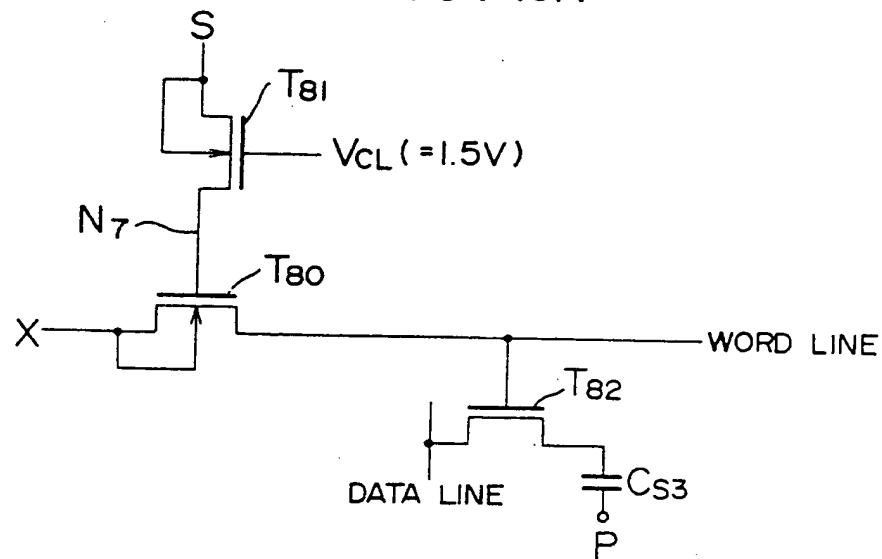


FIG. 18B

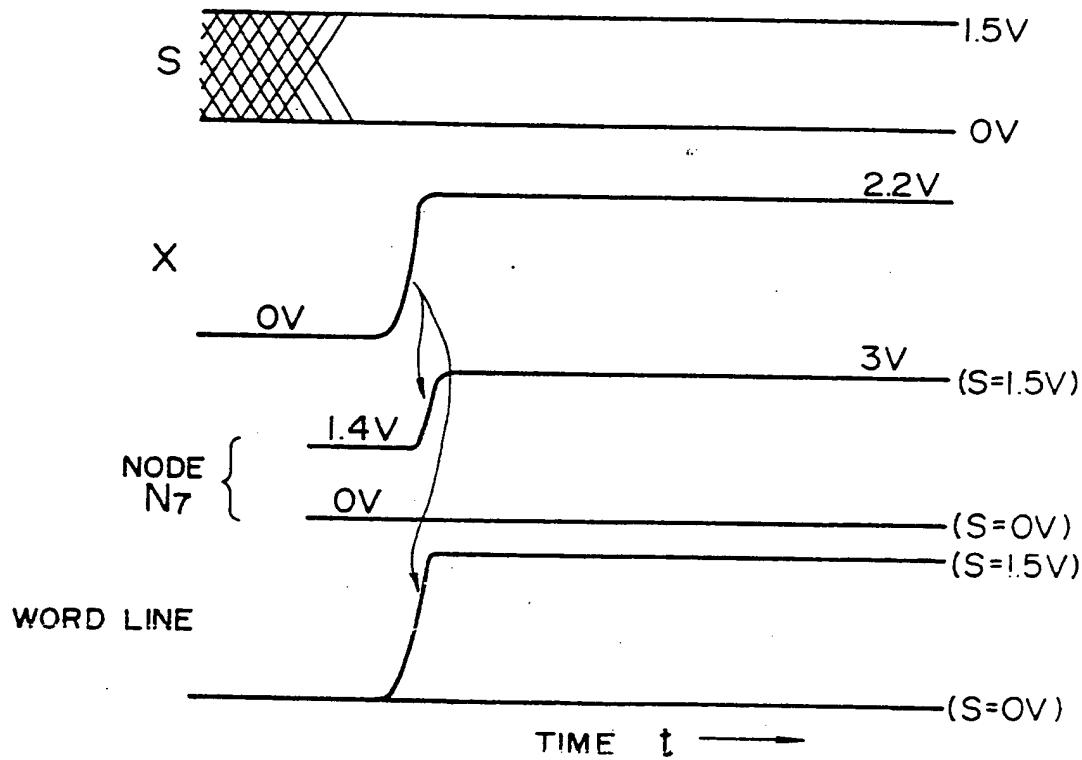


FIG. 18C

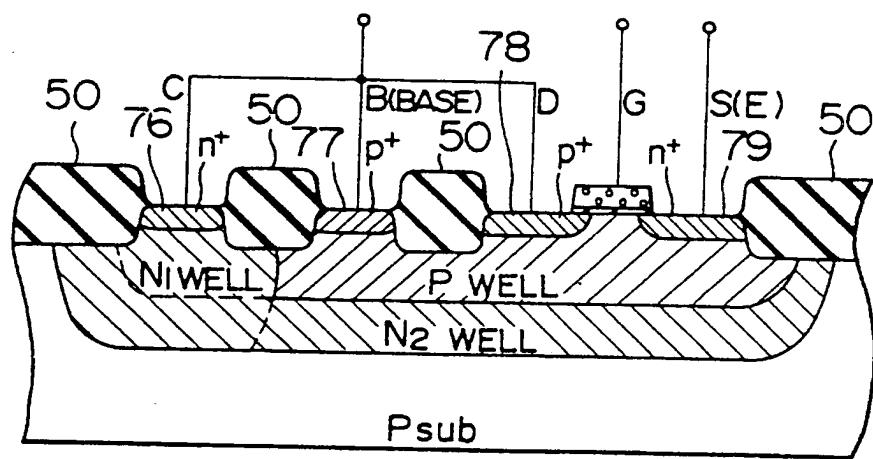


FIG. 18D

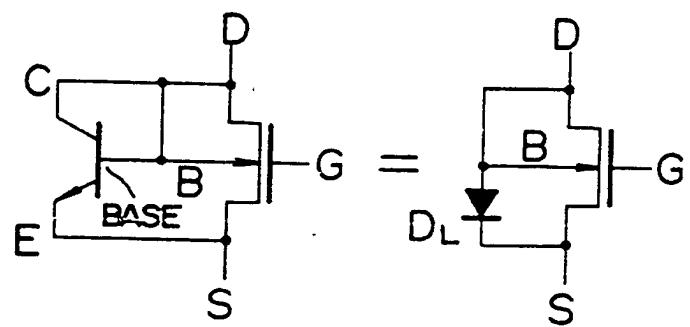


FIG. 19A

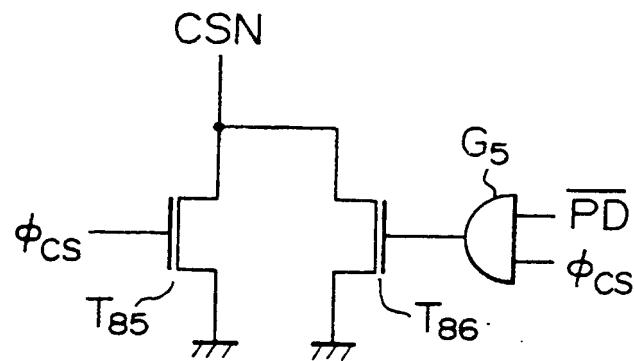


FIG. 19B

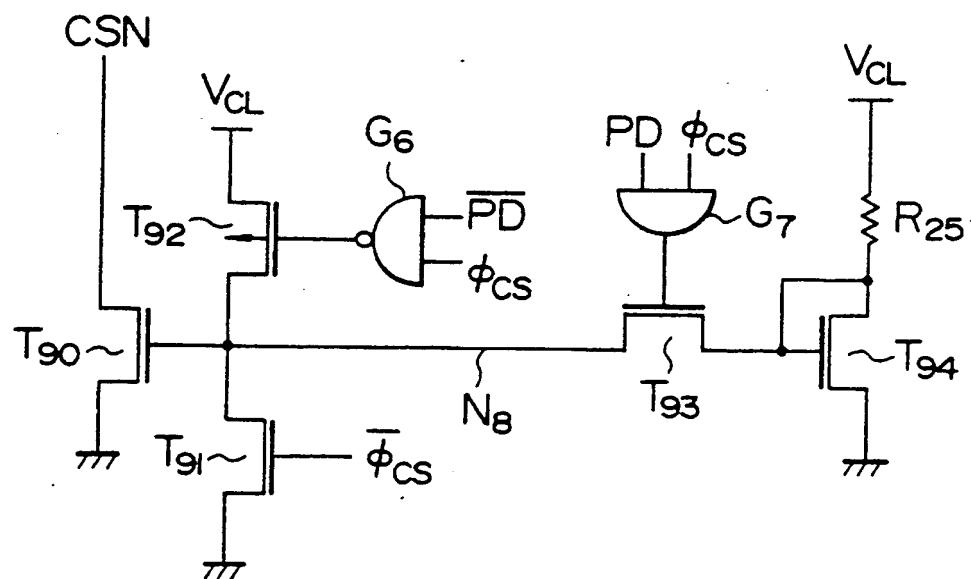


FIG. 20A

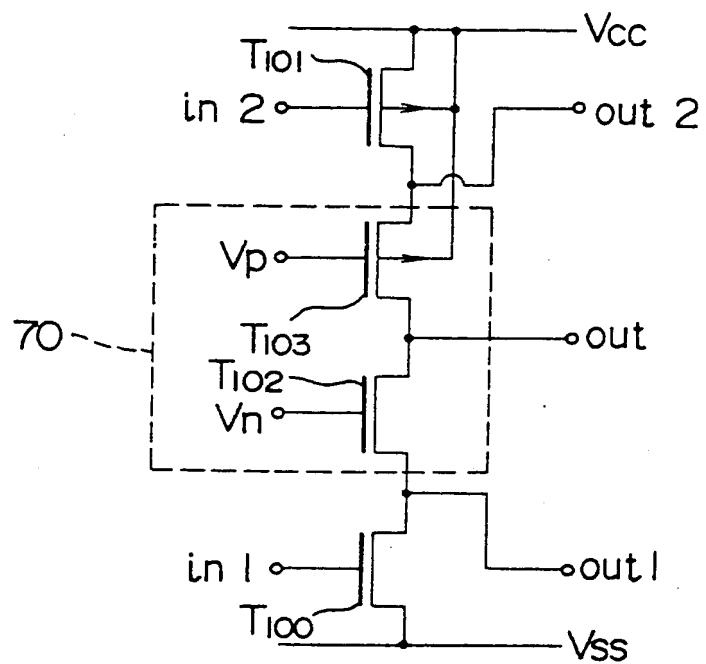


FIG. 20B

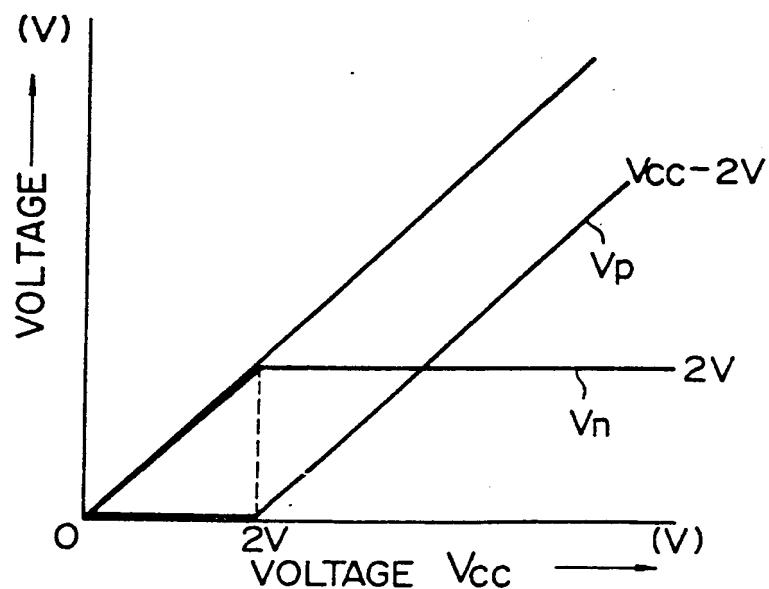


FIG. 20C

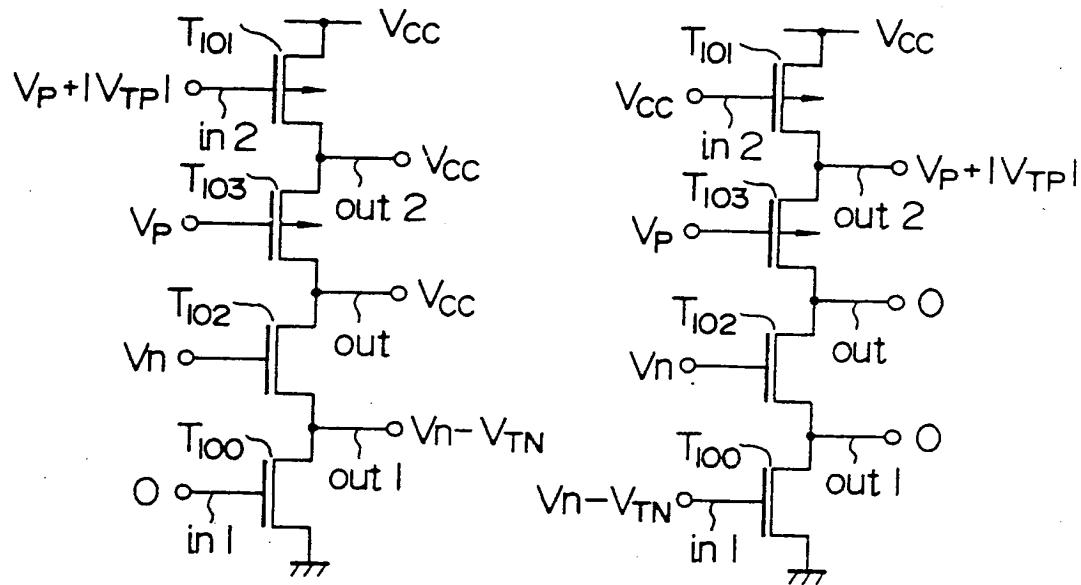


FIG. 20D

| | LOW INPUT (T_{100} CUT OFF, T_{101} ON) | HIGH INPUT (T_{100} ON, T_{101} CUT OFF) |
|-----------|--|---|
| T_{101} | $V_{CC} - V_P + V_{TP1} $ | $V_{CC} - V_P + V_{TP1} $ |
| T_{103} | $V_{CC} - V_P$ | V_P |
| T_{102} | $V_{CC} - V_n$ | V_n |
| T_{100} | $V_n - V_{TN}$ | $V_n - V_{TN}$ |

MAXIMUM VOLTAGE APPLIED TO GATE ELECTRODE

FIG. 21A

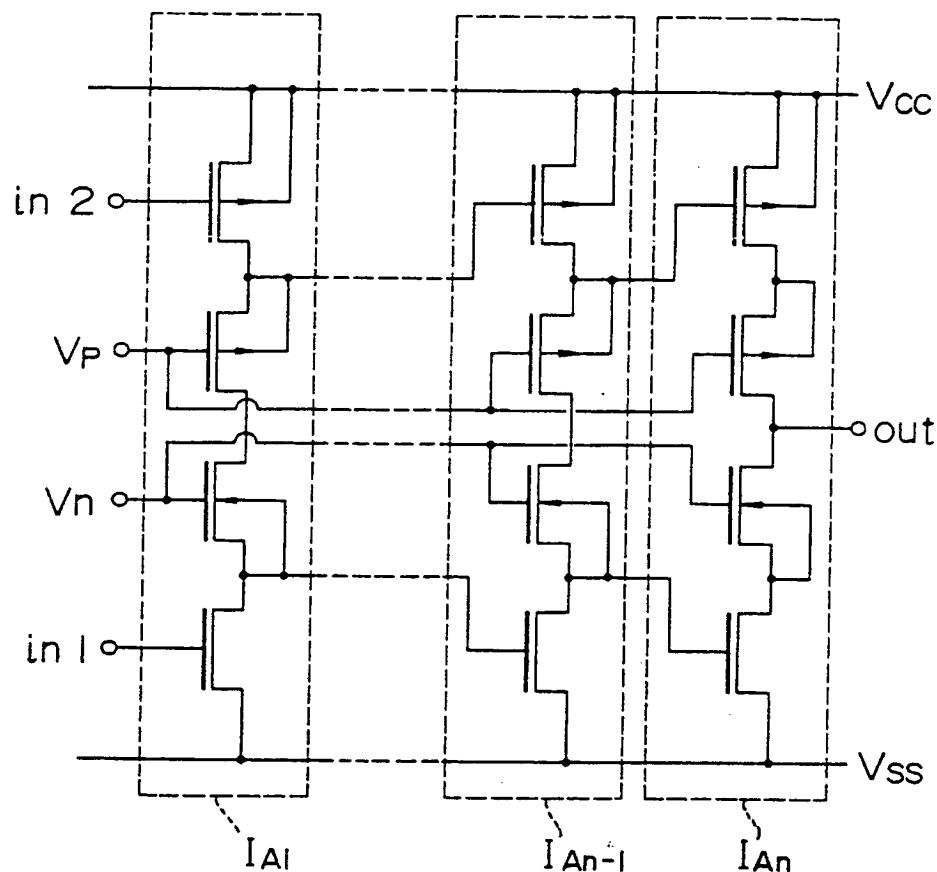


FIG. 21B

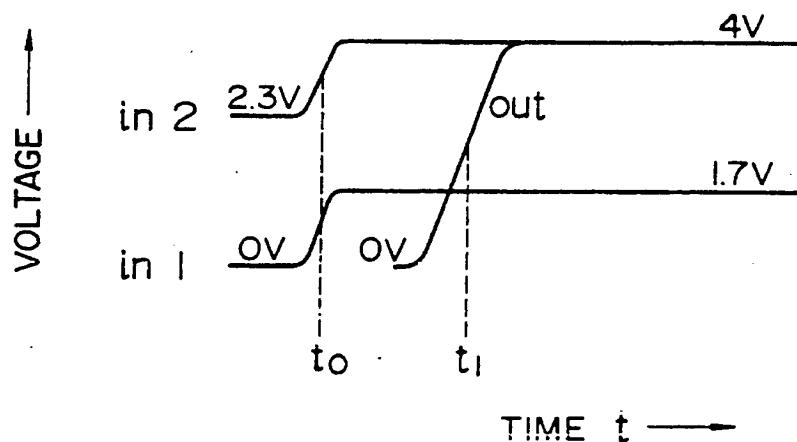


FIG. 22A

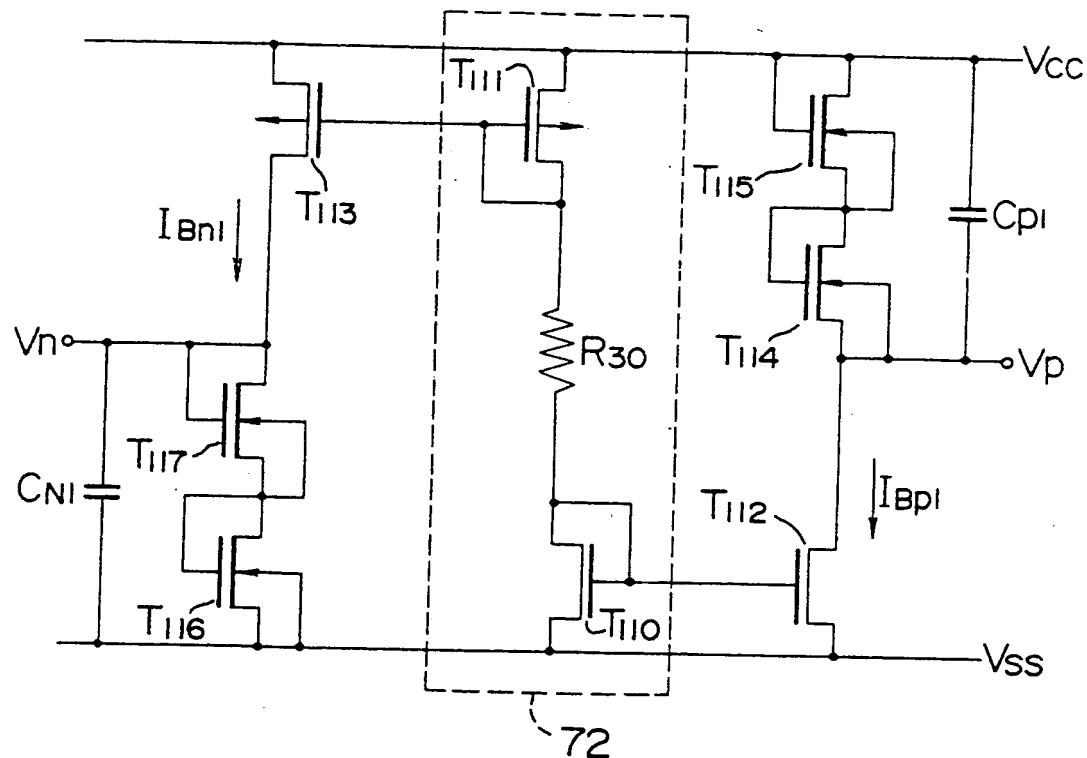


FIG. 22B

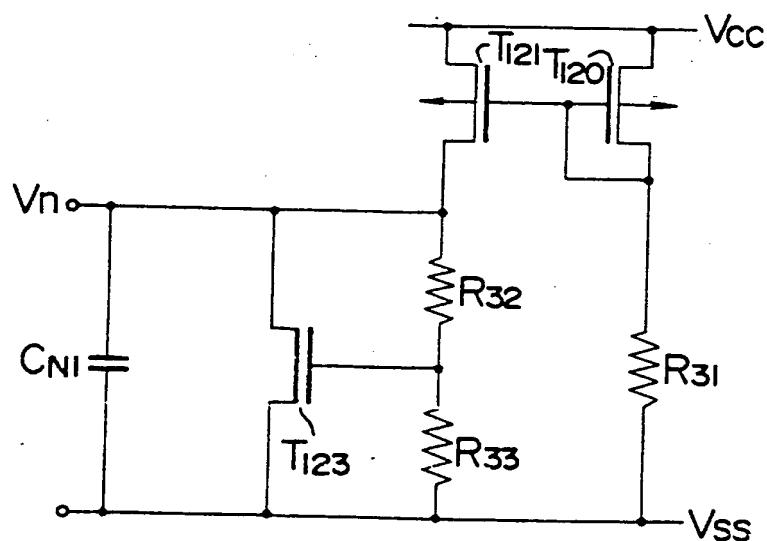


FIG. 23A

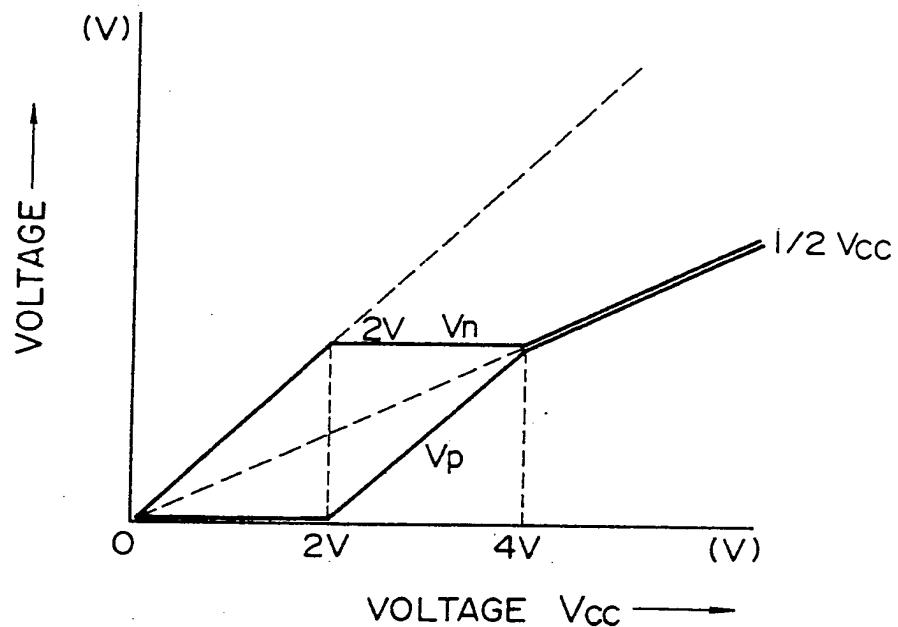


FIG. 23B

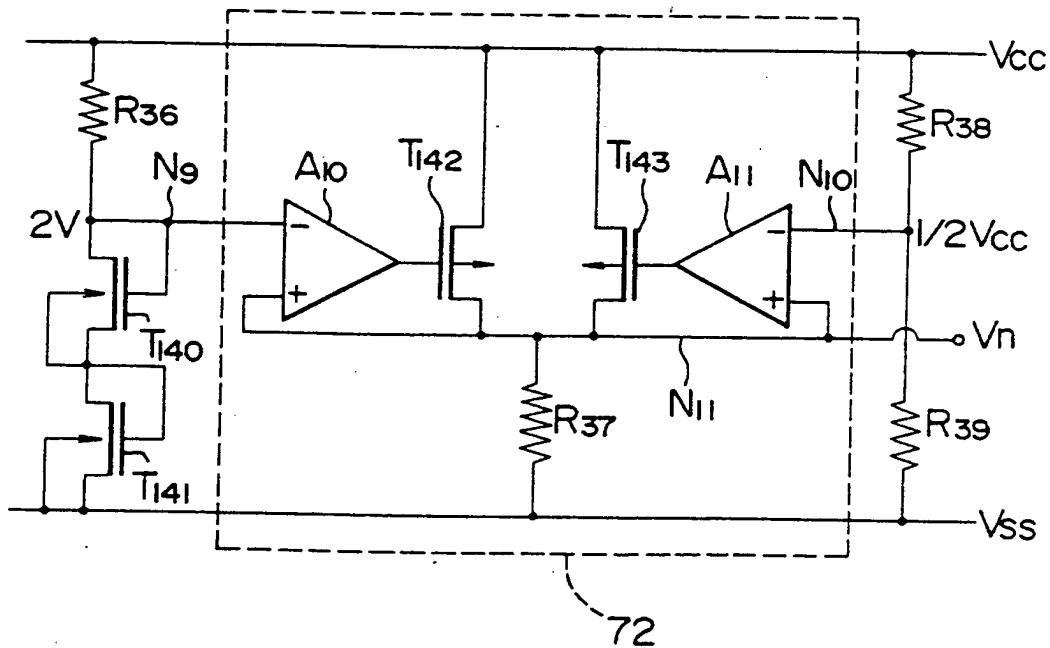


FIG. 24

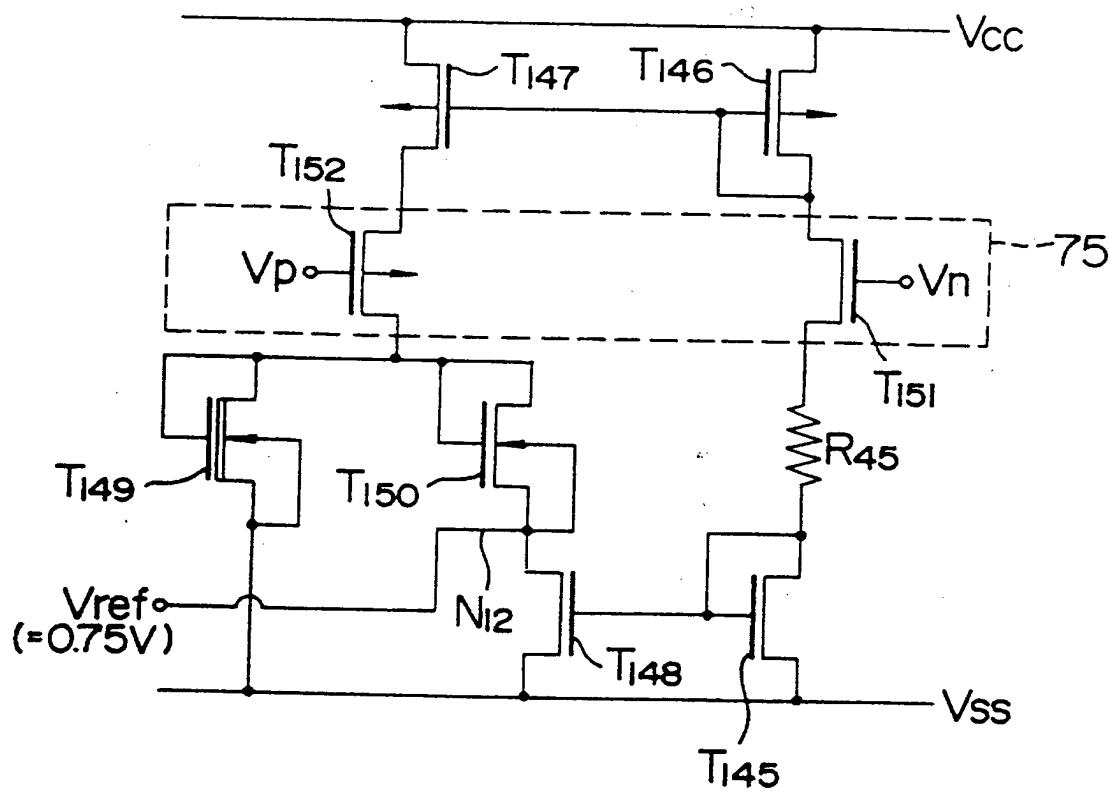


FIG. 25A

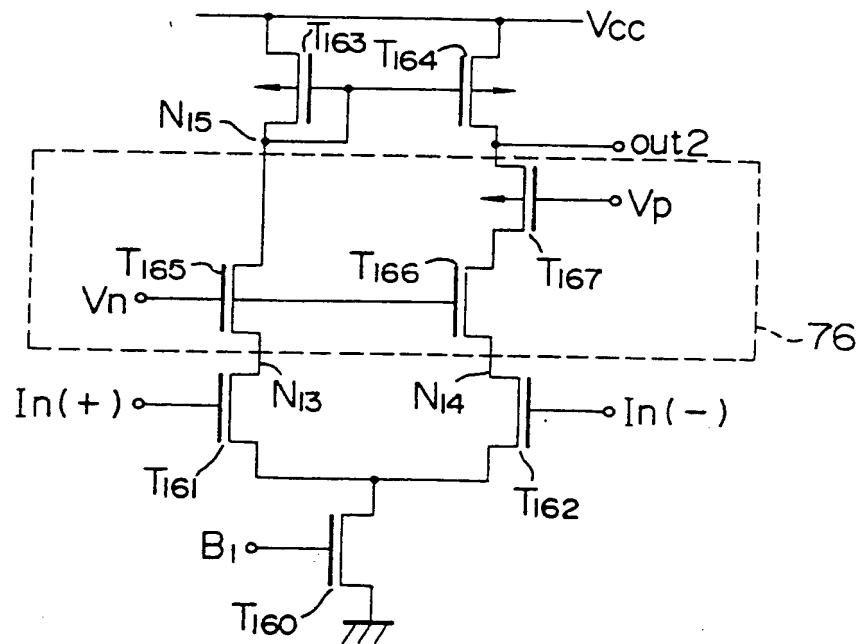


FIG. 25B

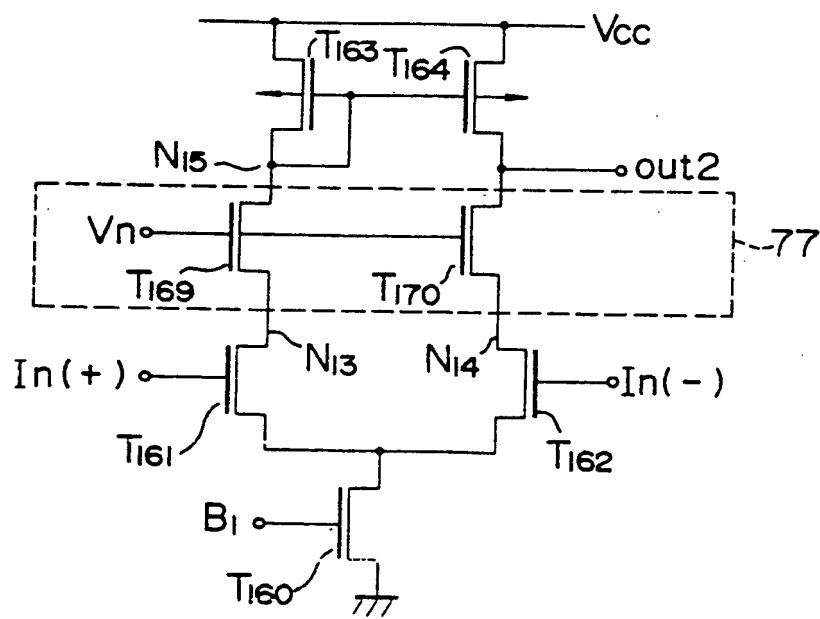


FIG. 26A

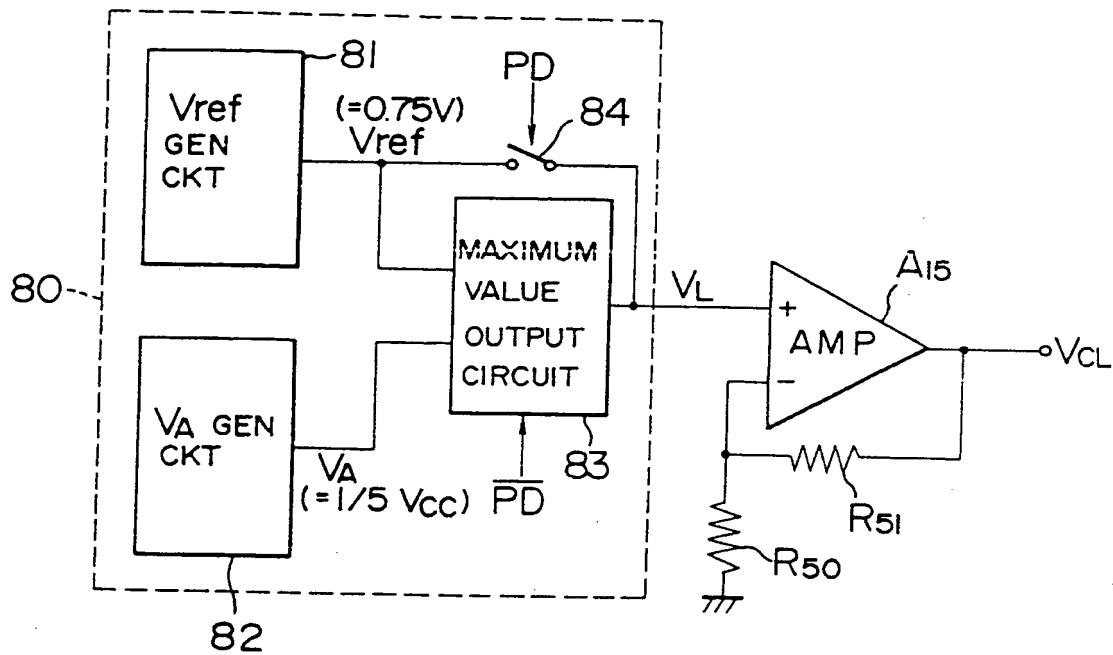


FIG. 26B

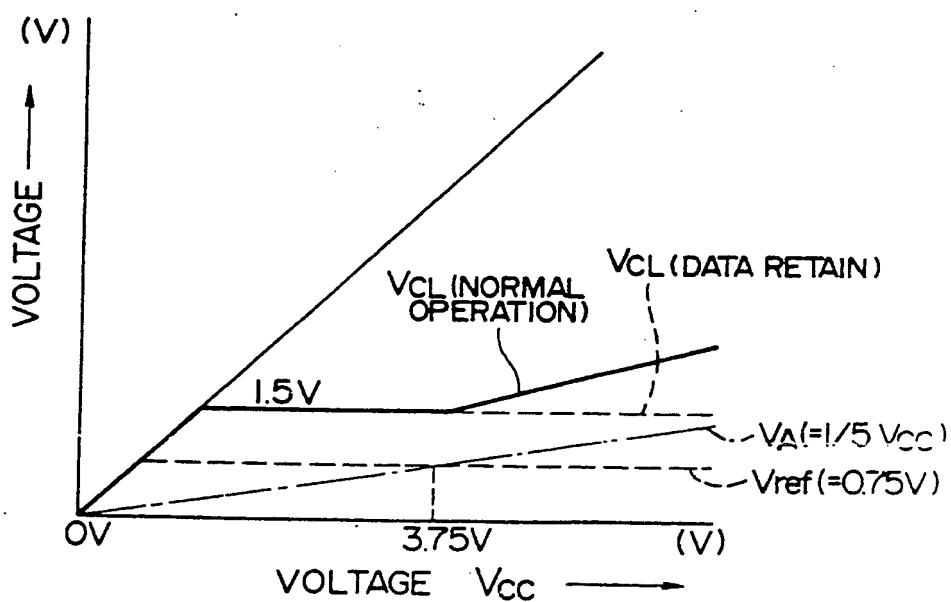


FIG. 26C

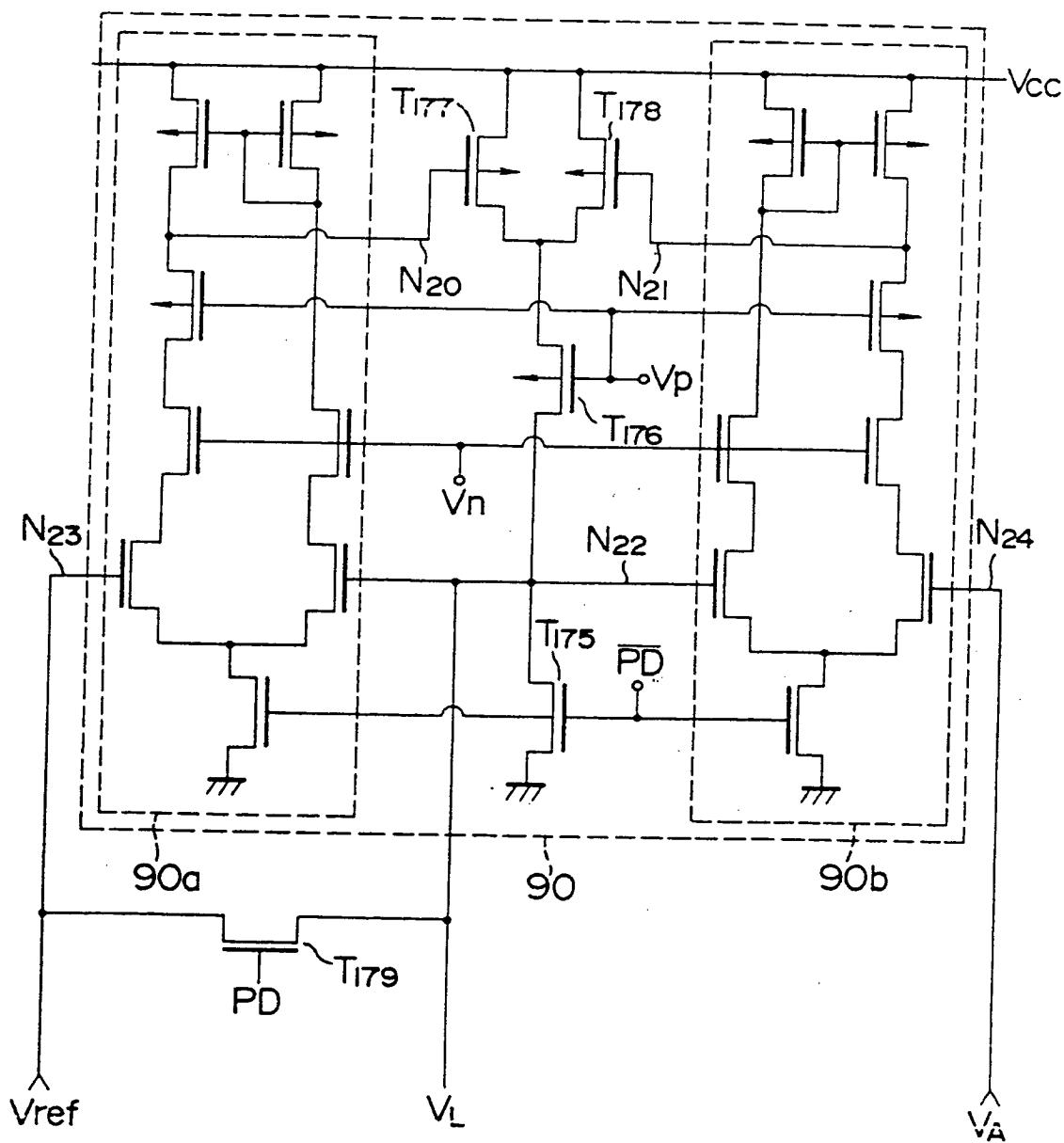


FIG. 27A

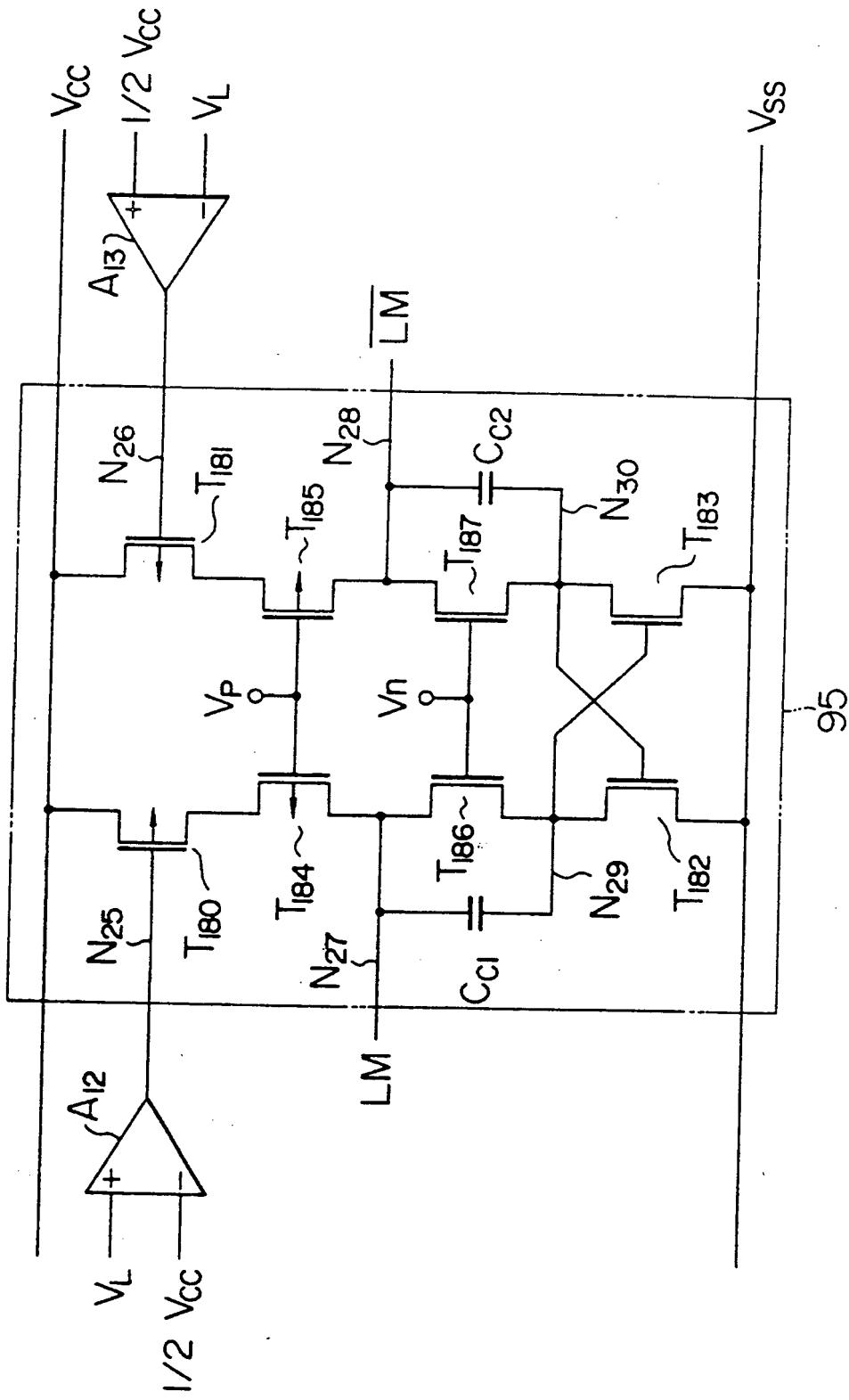


FIG. 27B

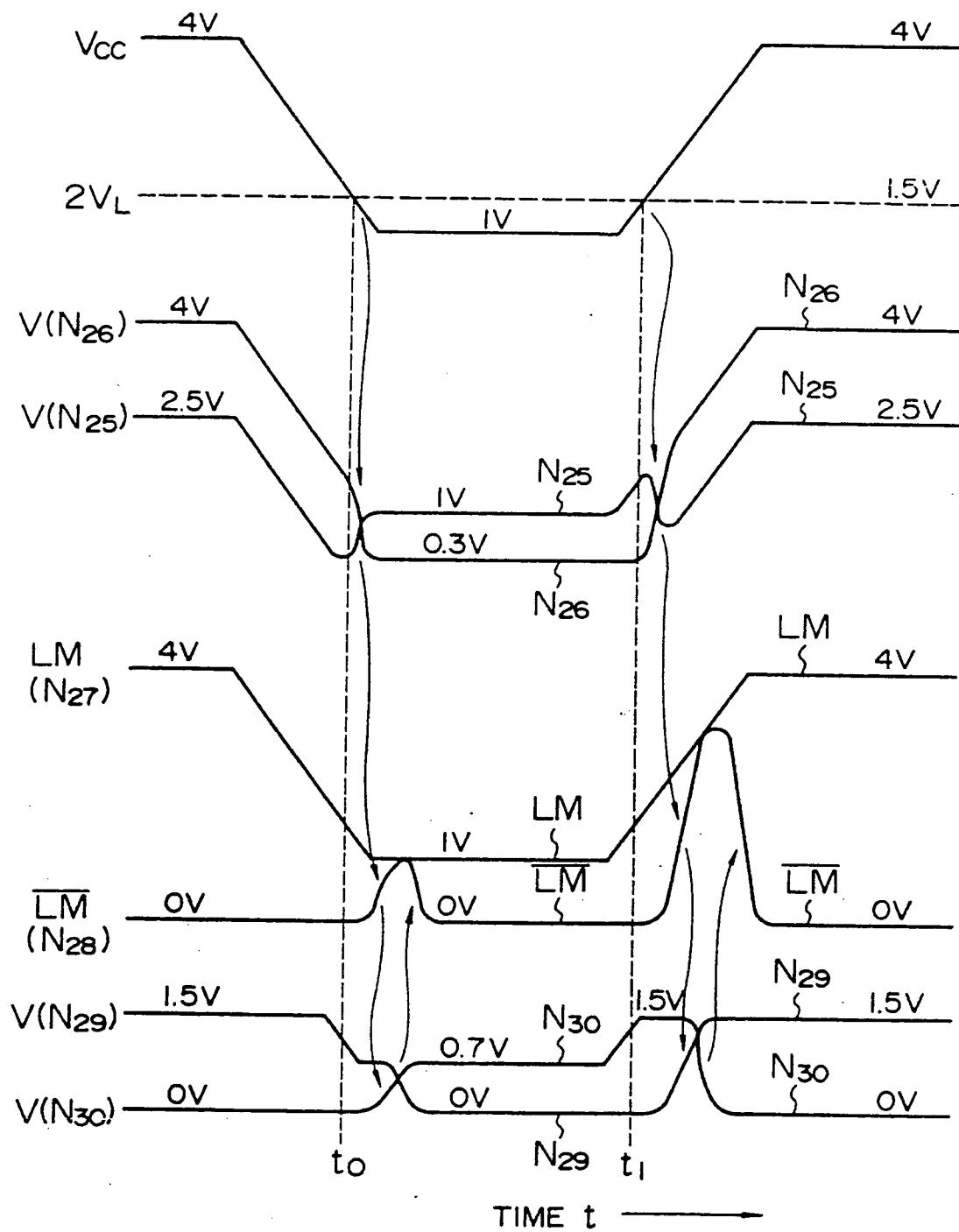


FIG. 28A

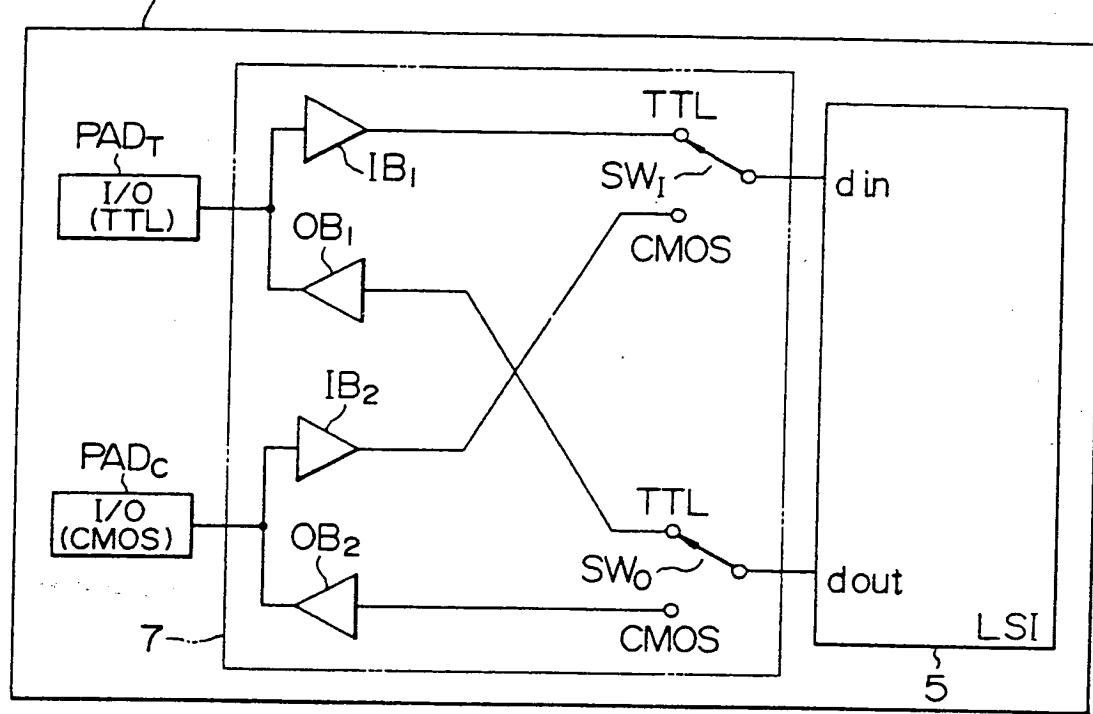


FIG. 28B

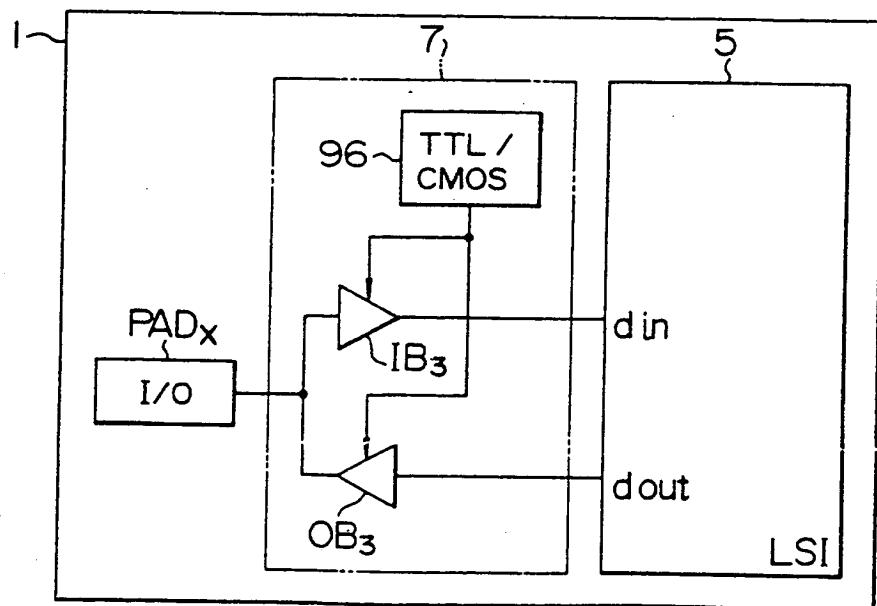
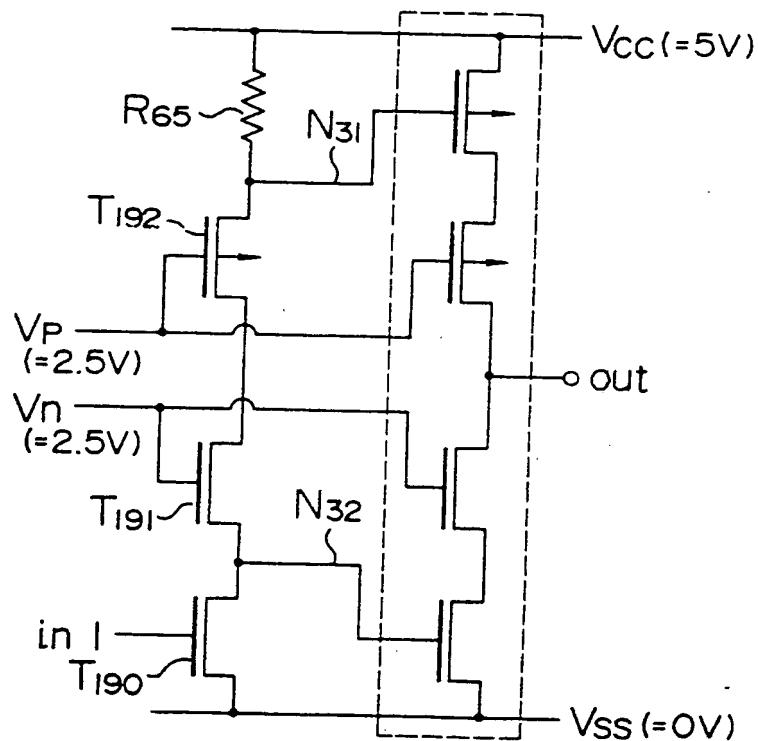


FIG. 29A



98

FIG. 29B

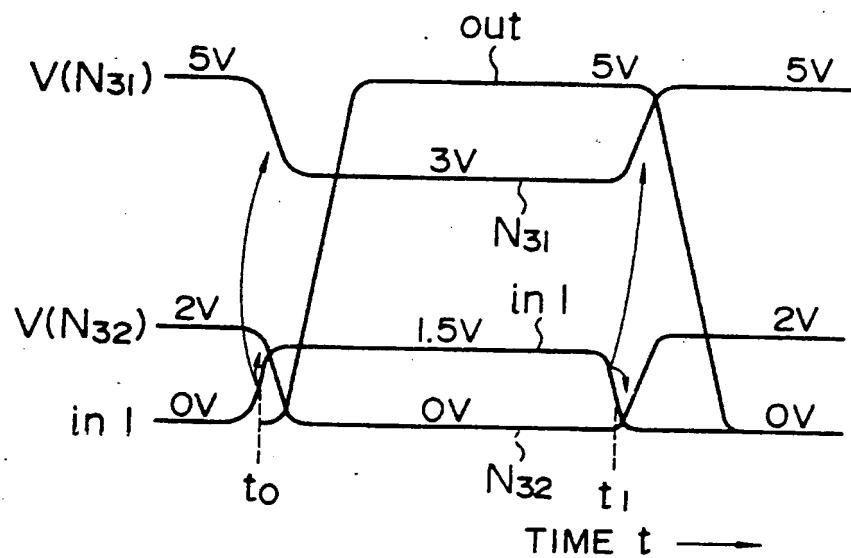


FIG. 30A

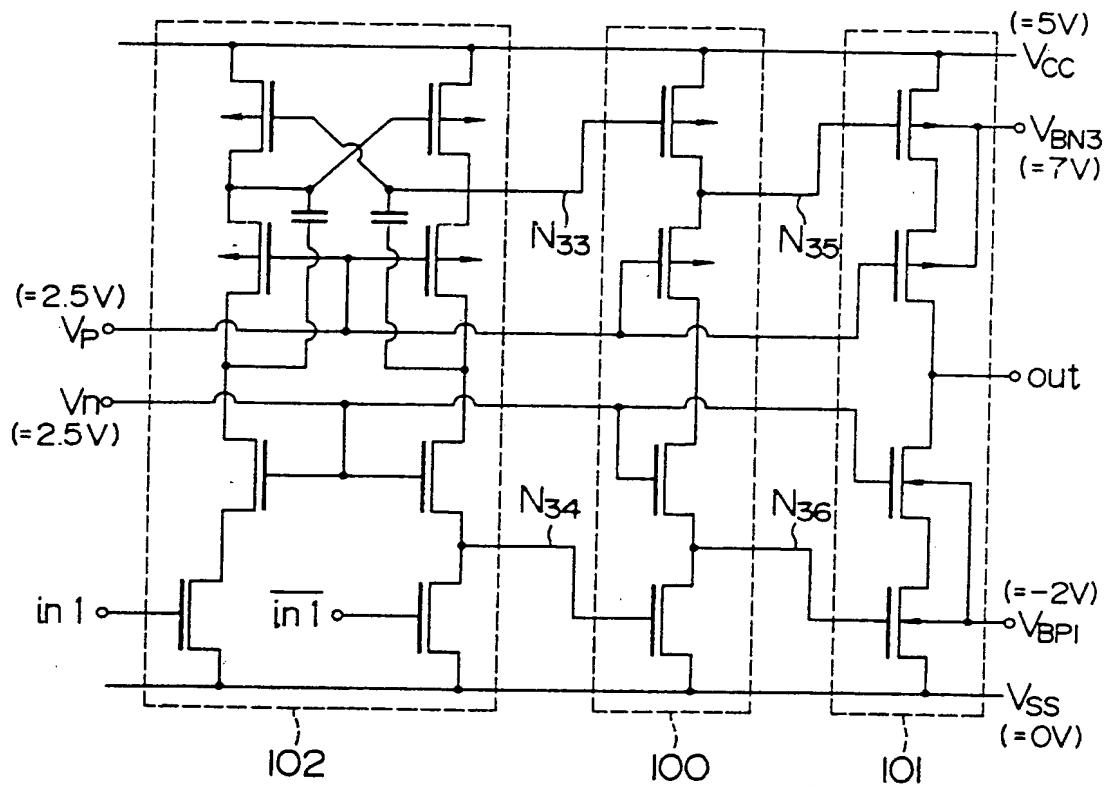


FIG. 30B

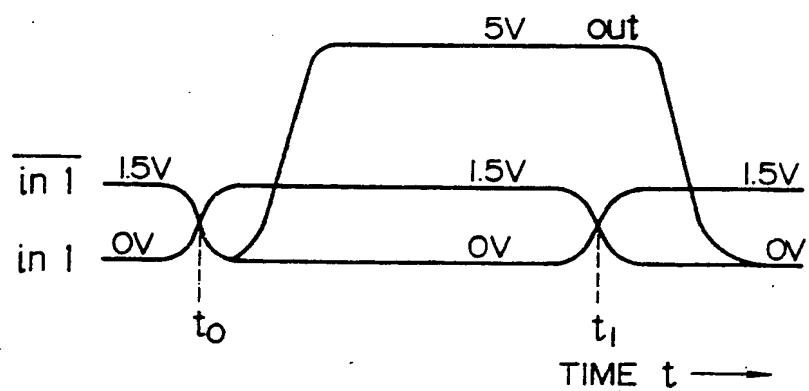


FIG. 31A

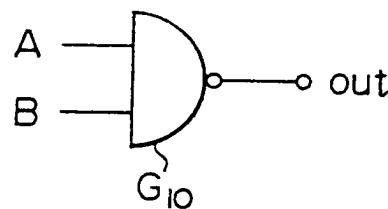


FIG. 31B

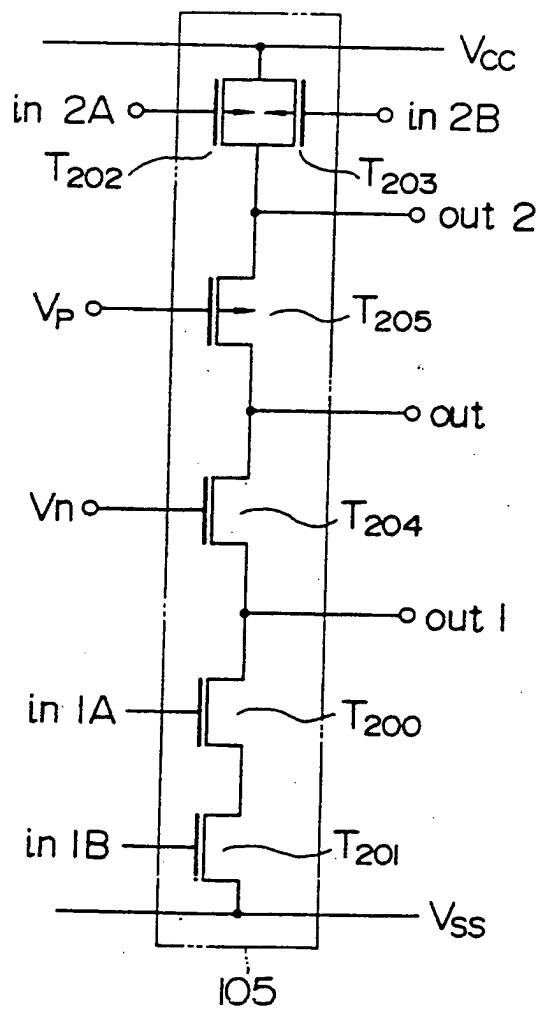


FIG. 32A

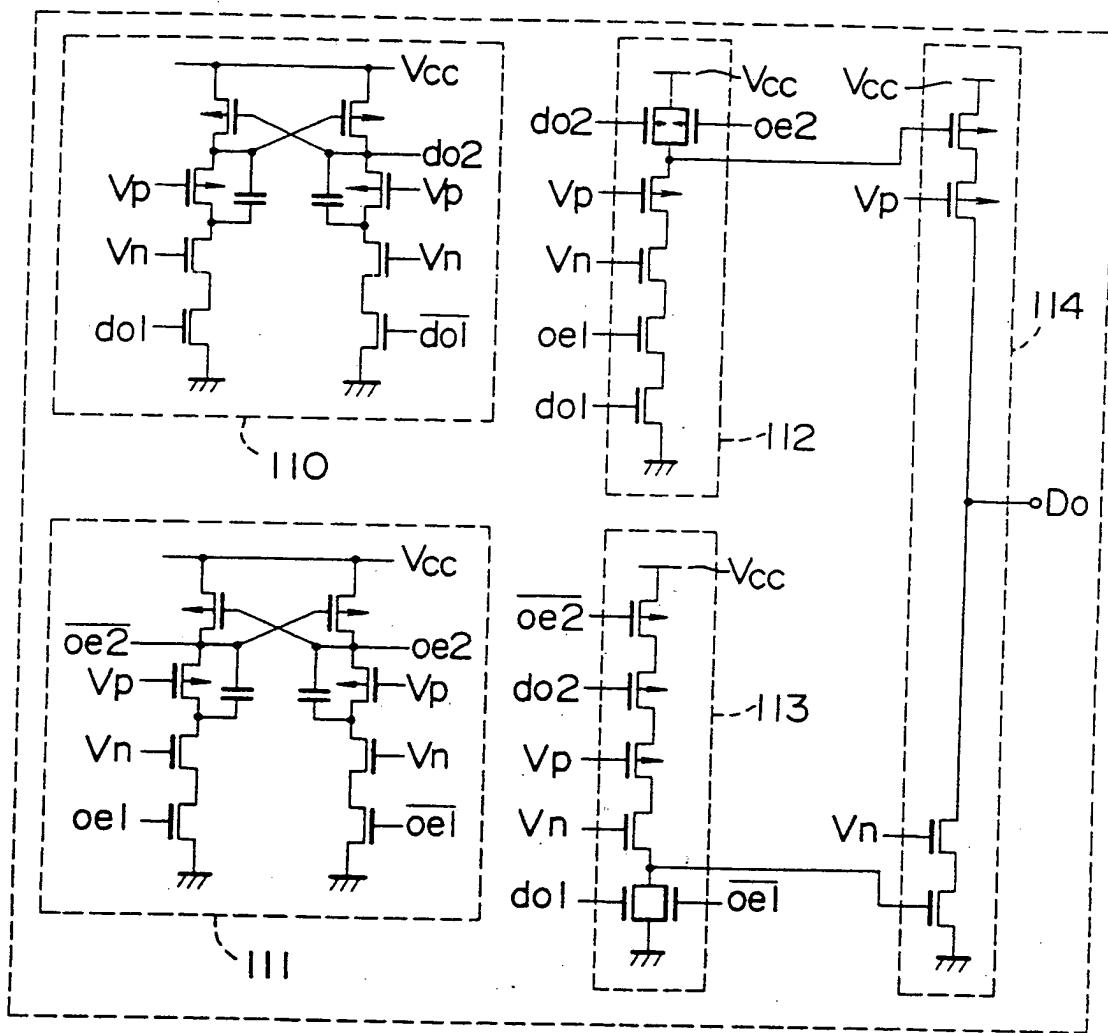


FIG. 32B

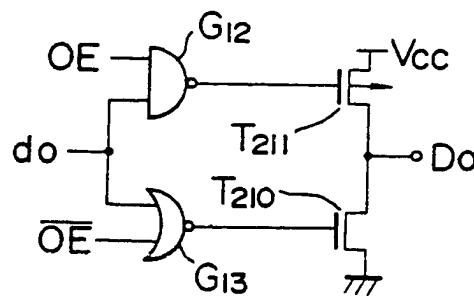


FIG. 33

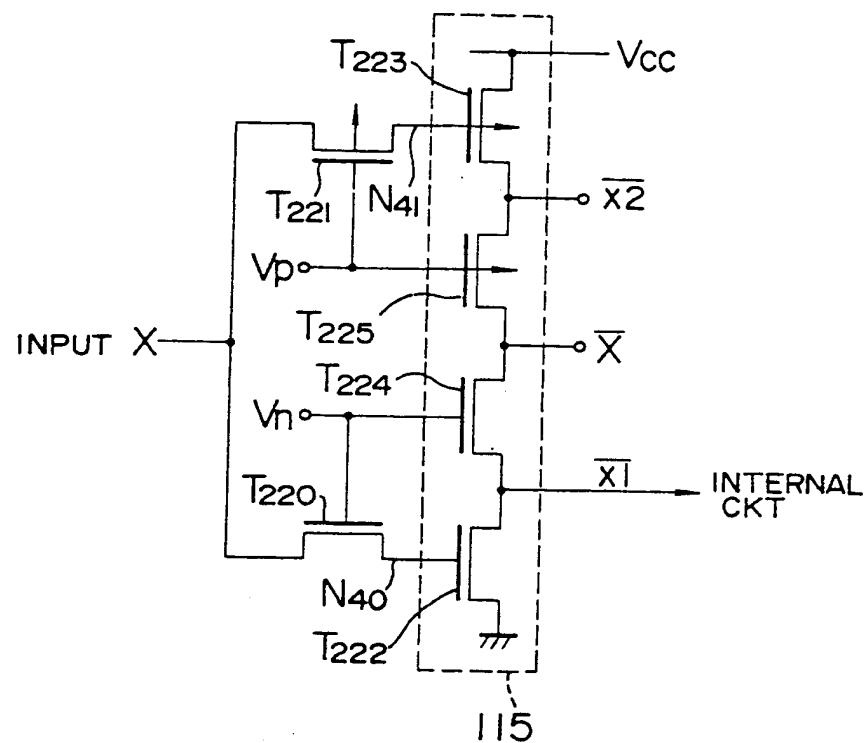


FIG. 34B

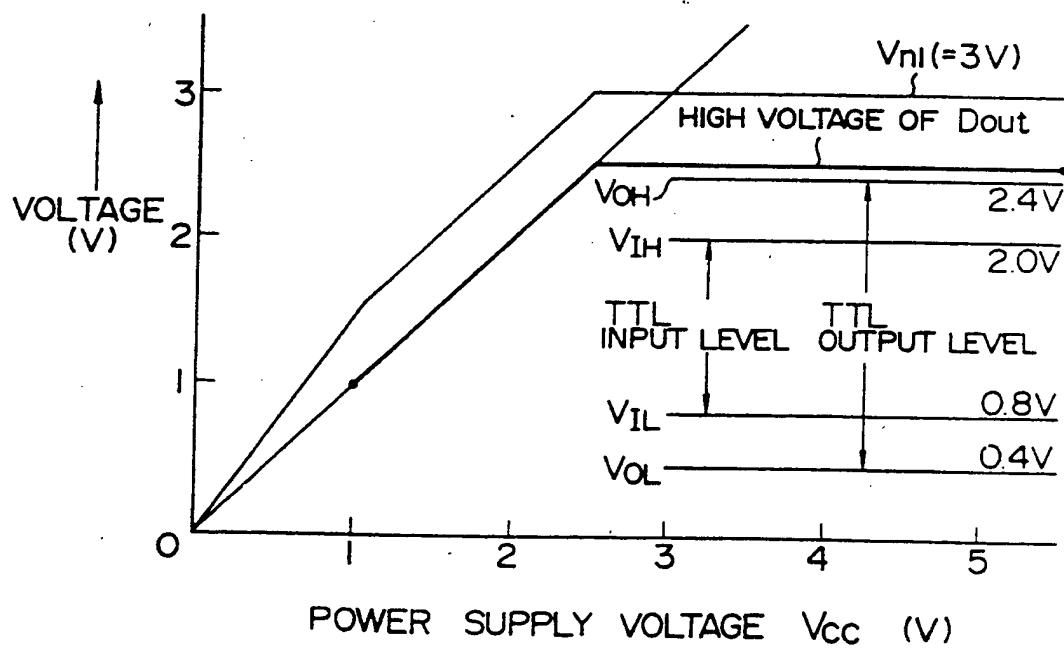


FIG. 34A

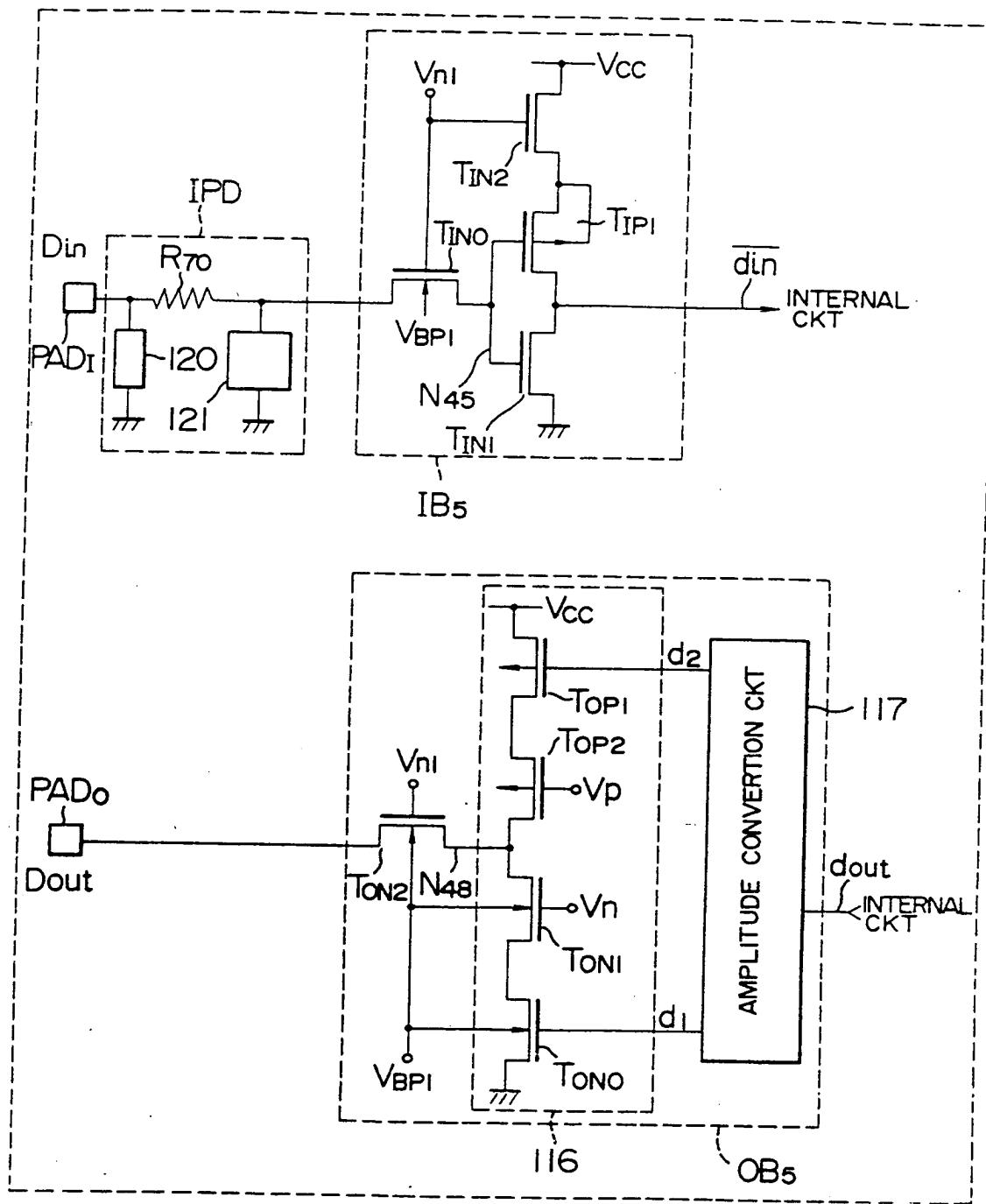


FIG. 35A

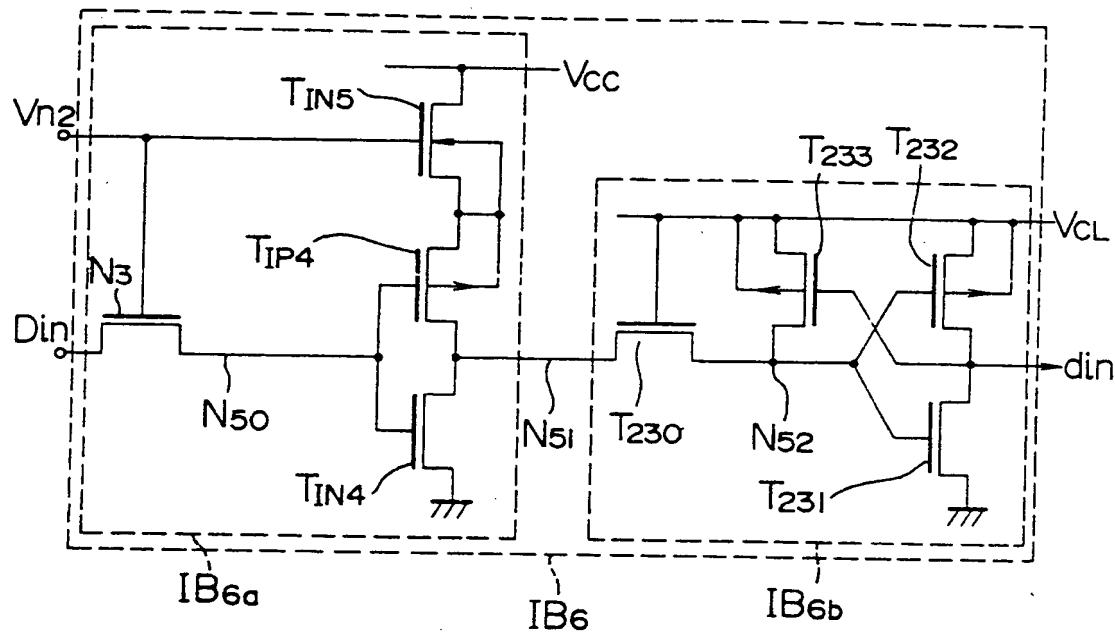


FIG. 35B

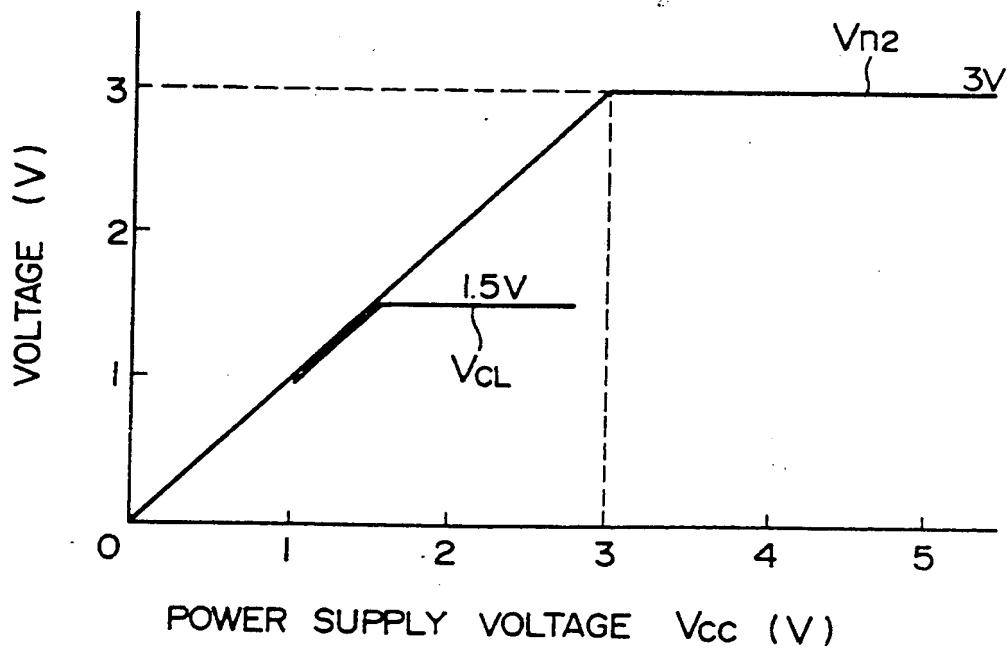
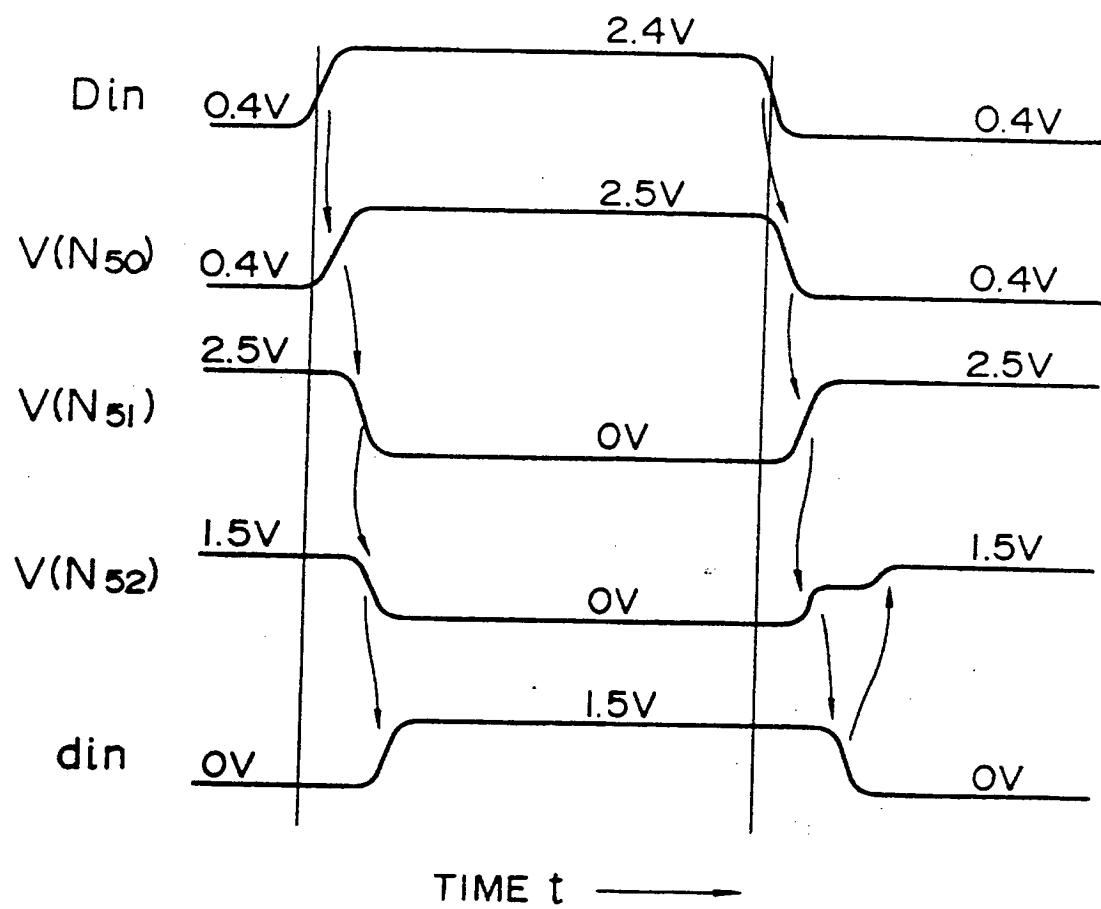


FIG. 35C



$$V_{CC} = 5V$$

$$V_{CL} = 1.5V$$

FIG. 35D

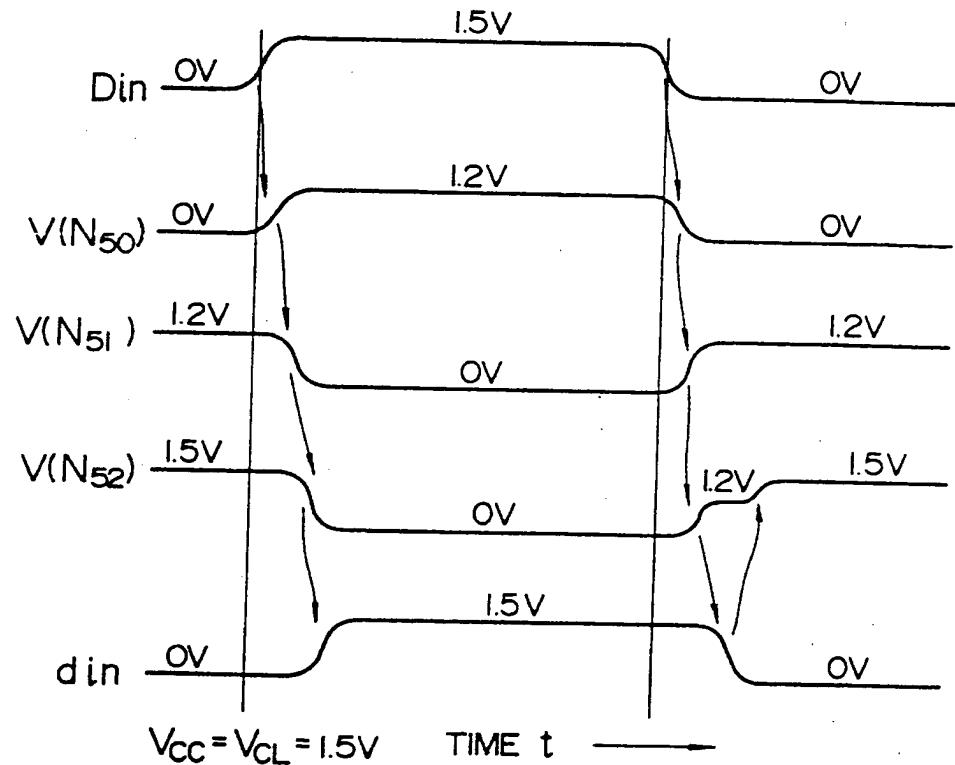


FIG. 36A

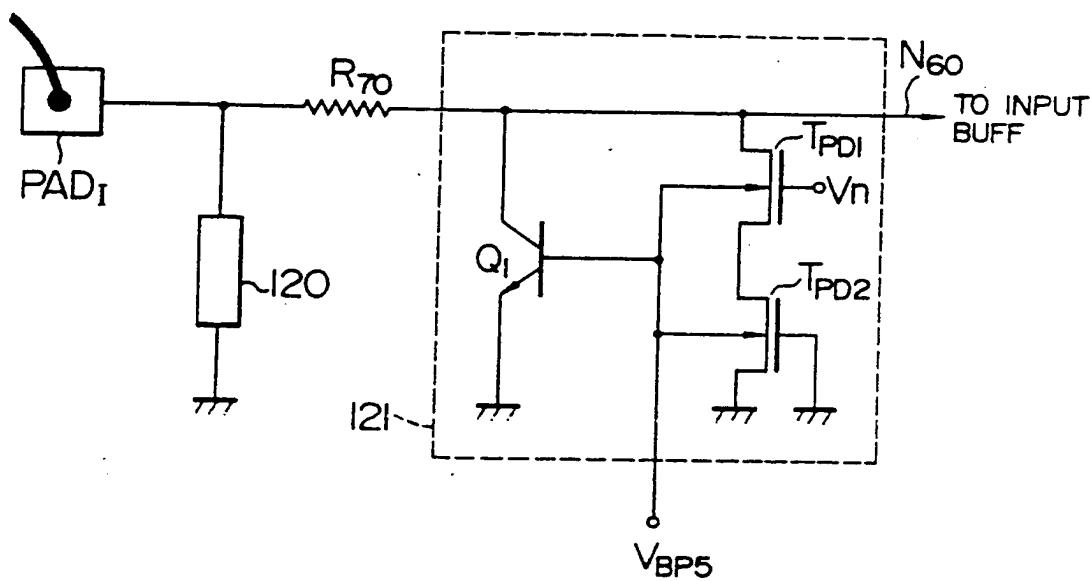


FIG. 36B

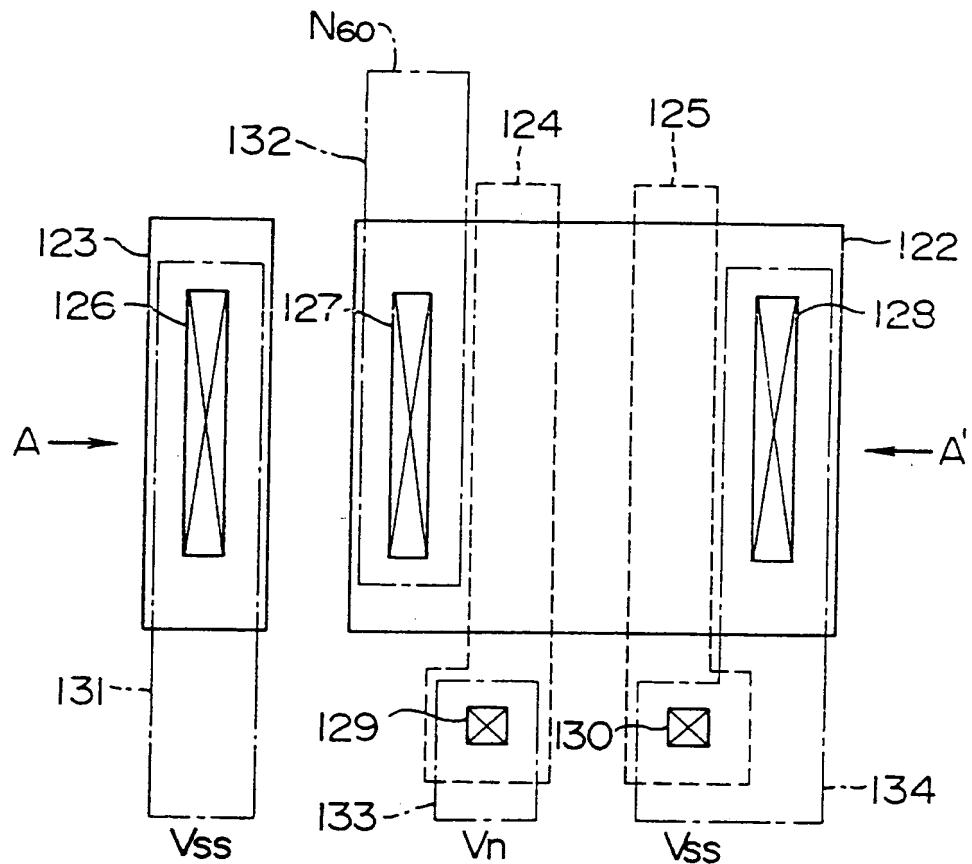


FIG. 36C

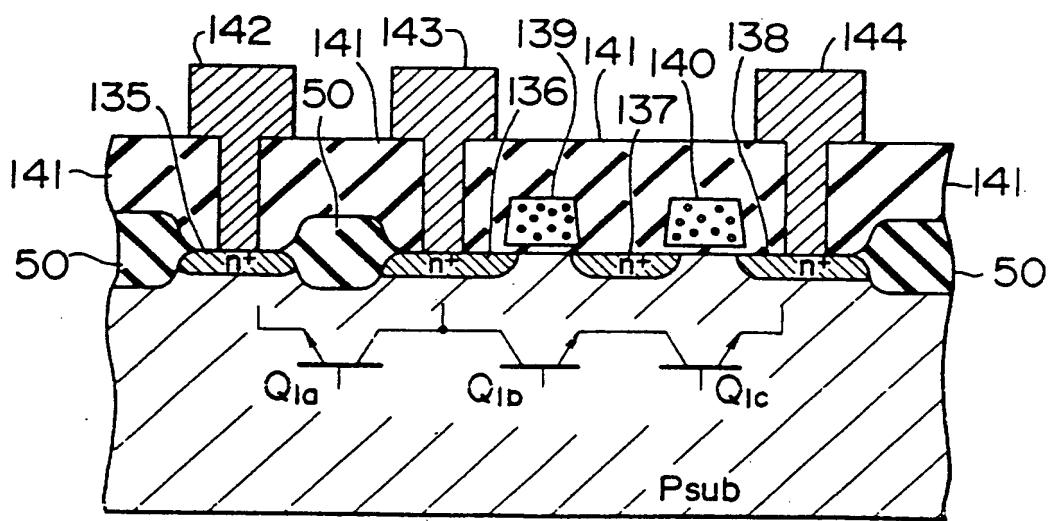


FIG. 37A

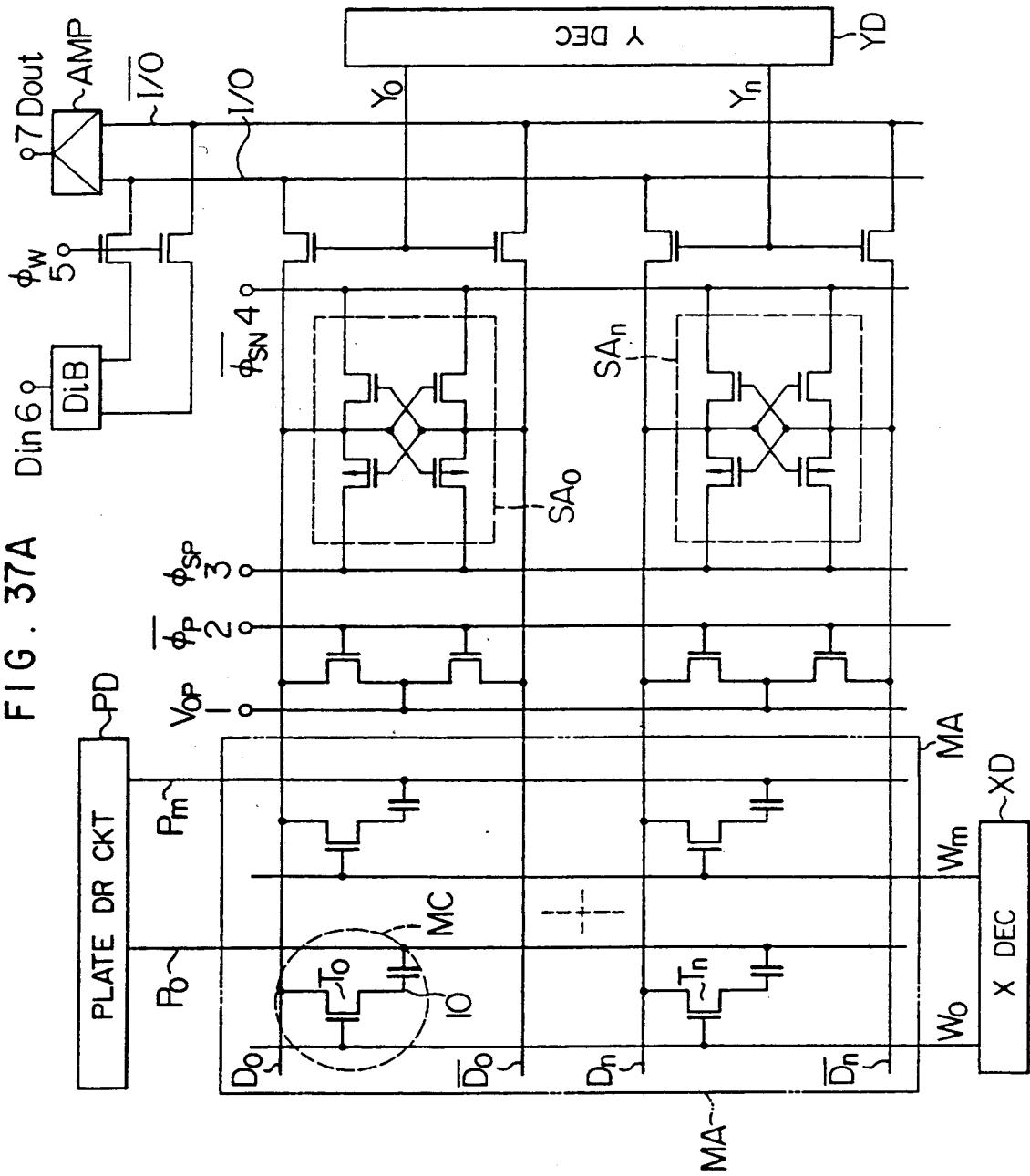


FIG. 37B

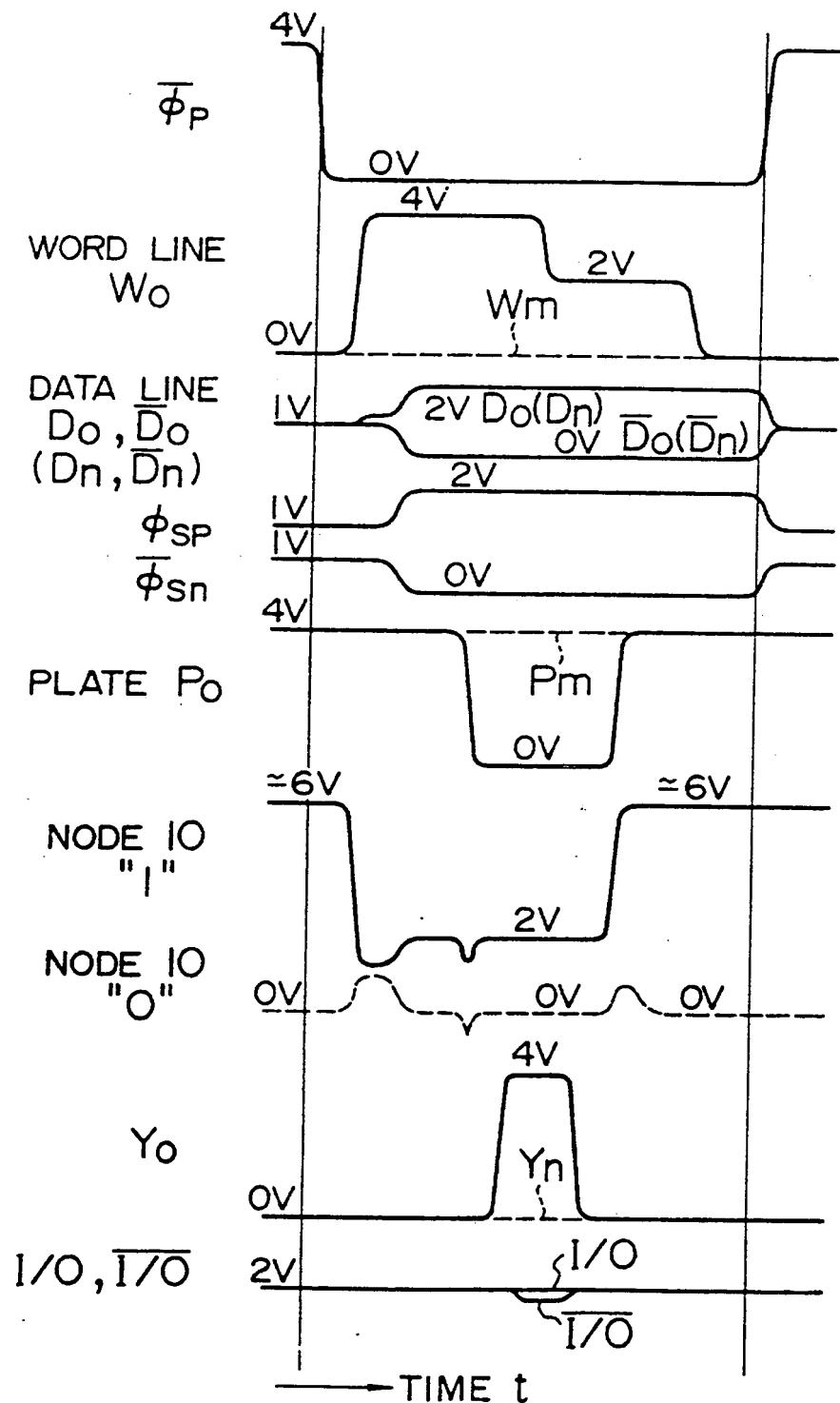


FIG. 37C

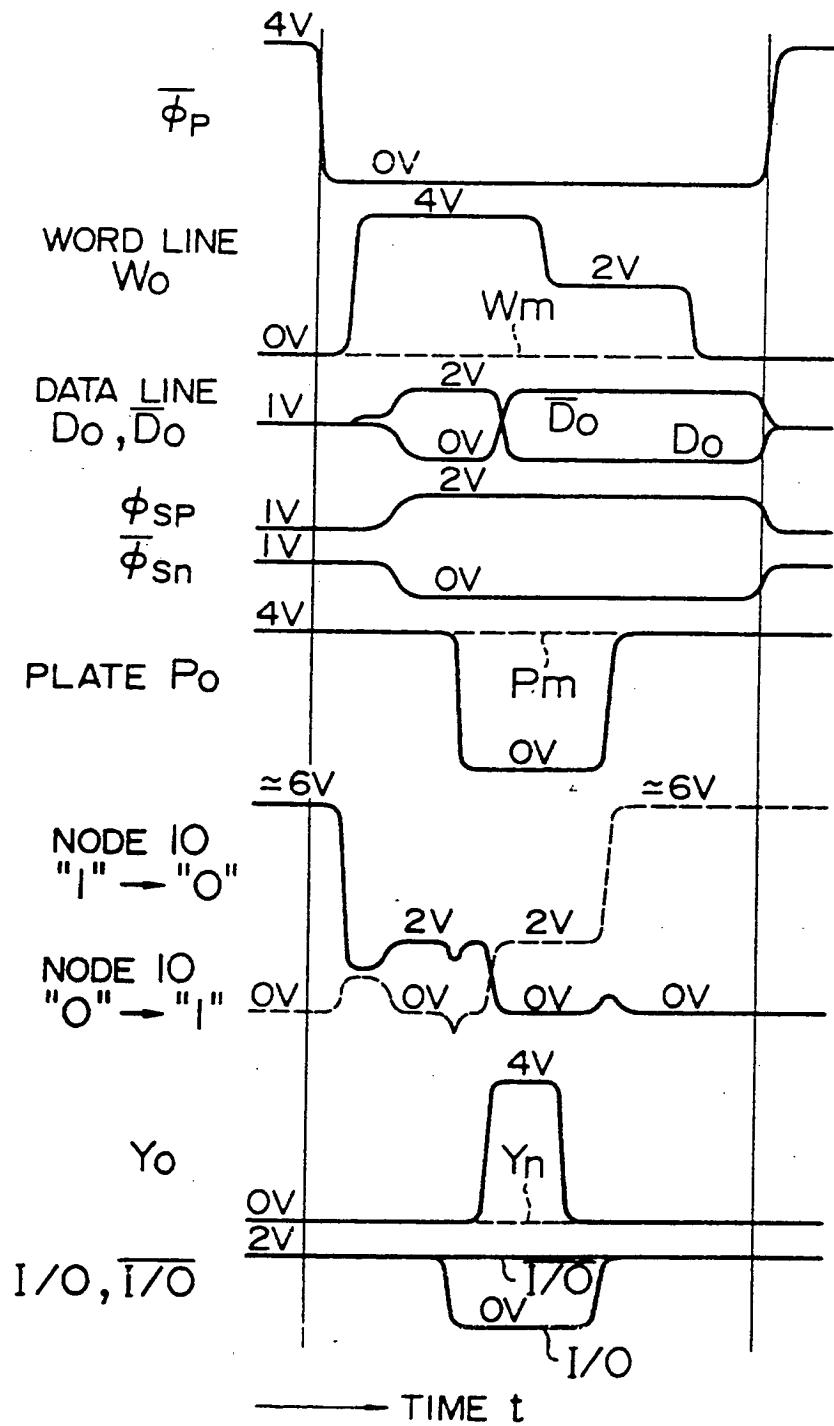


FIG. 37D

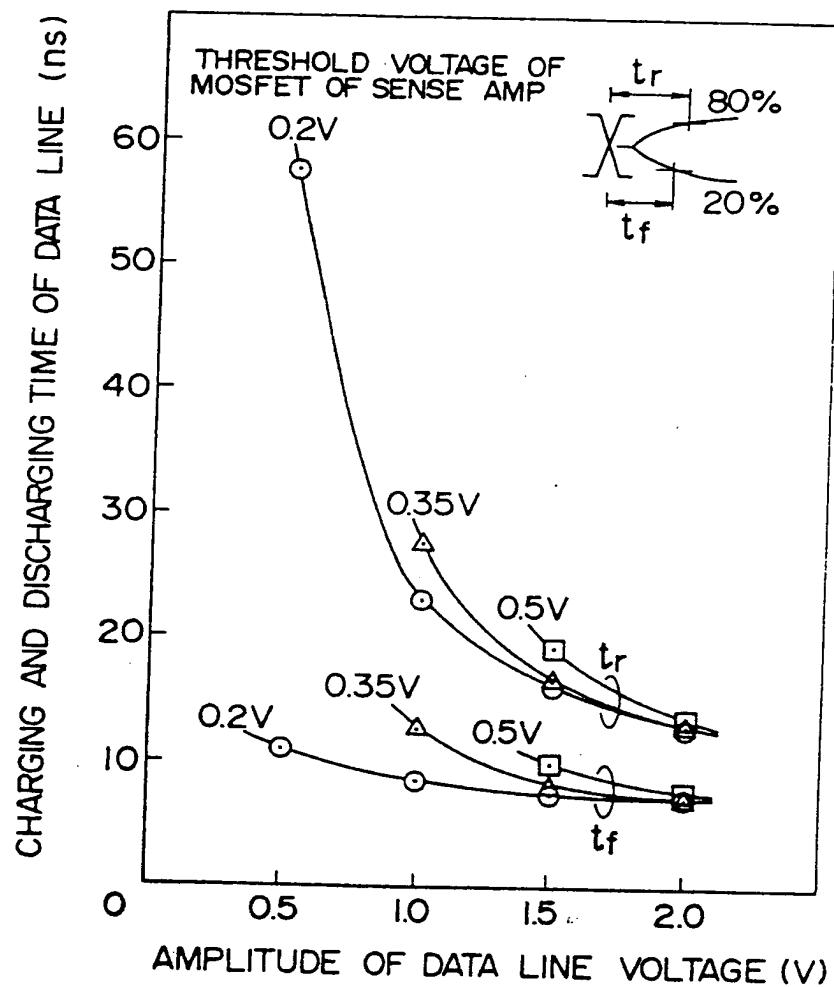


FIG. 37E

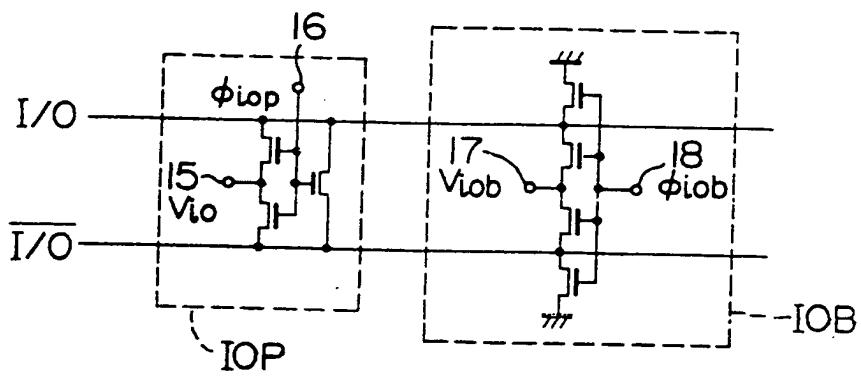


FIG. 38A

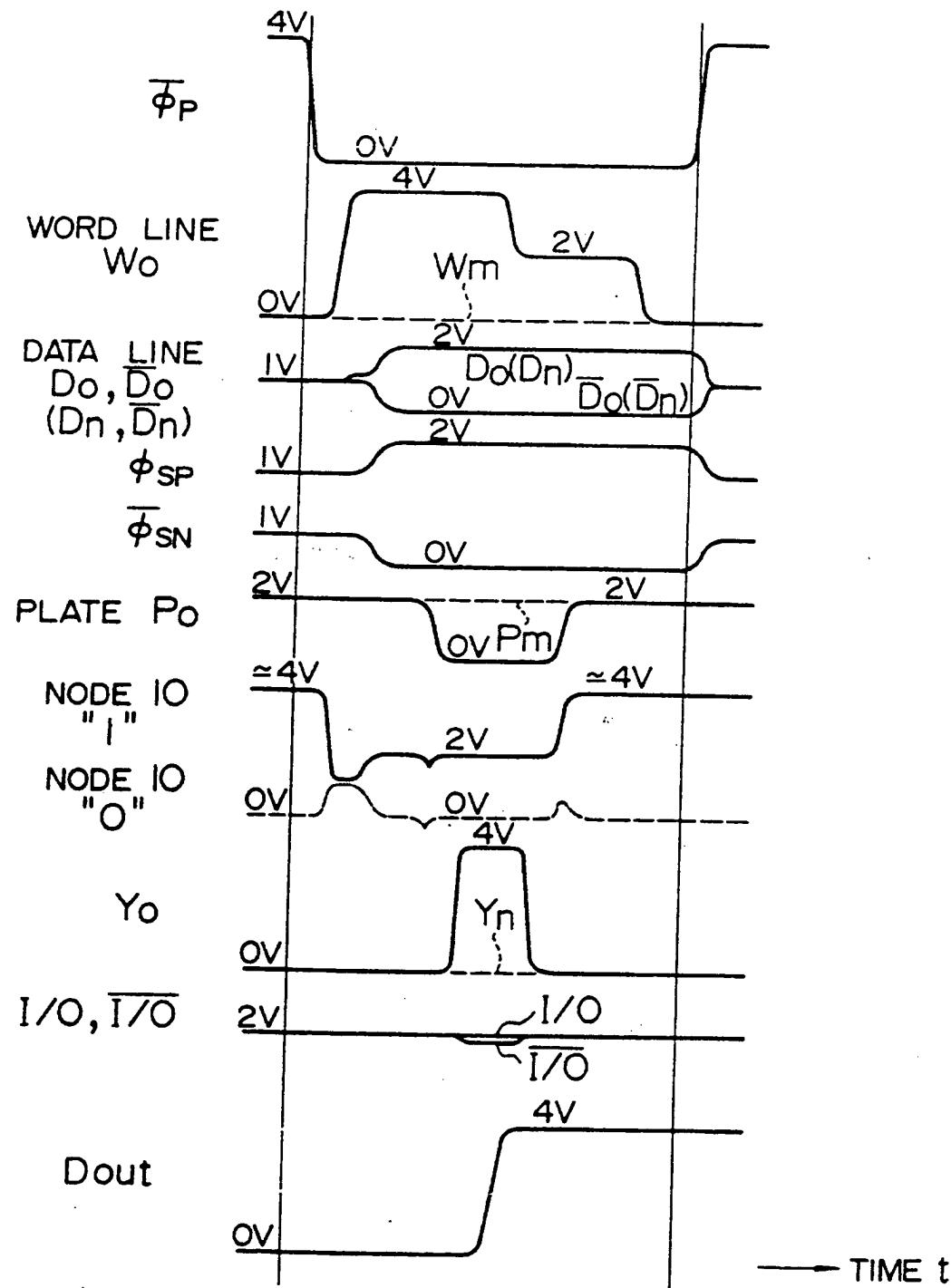


FIG. 38B

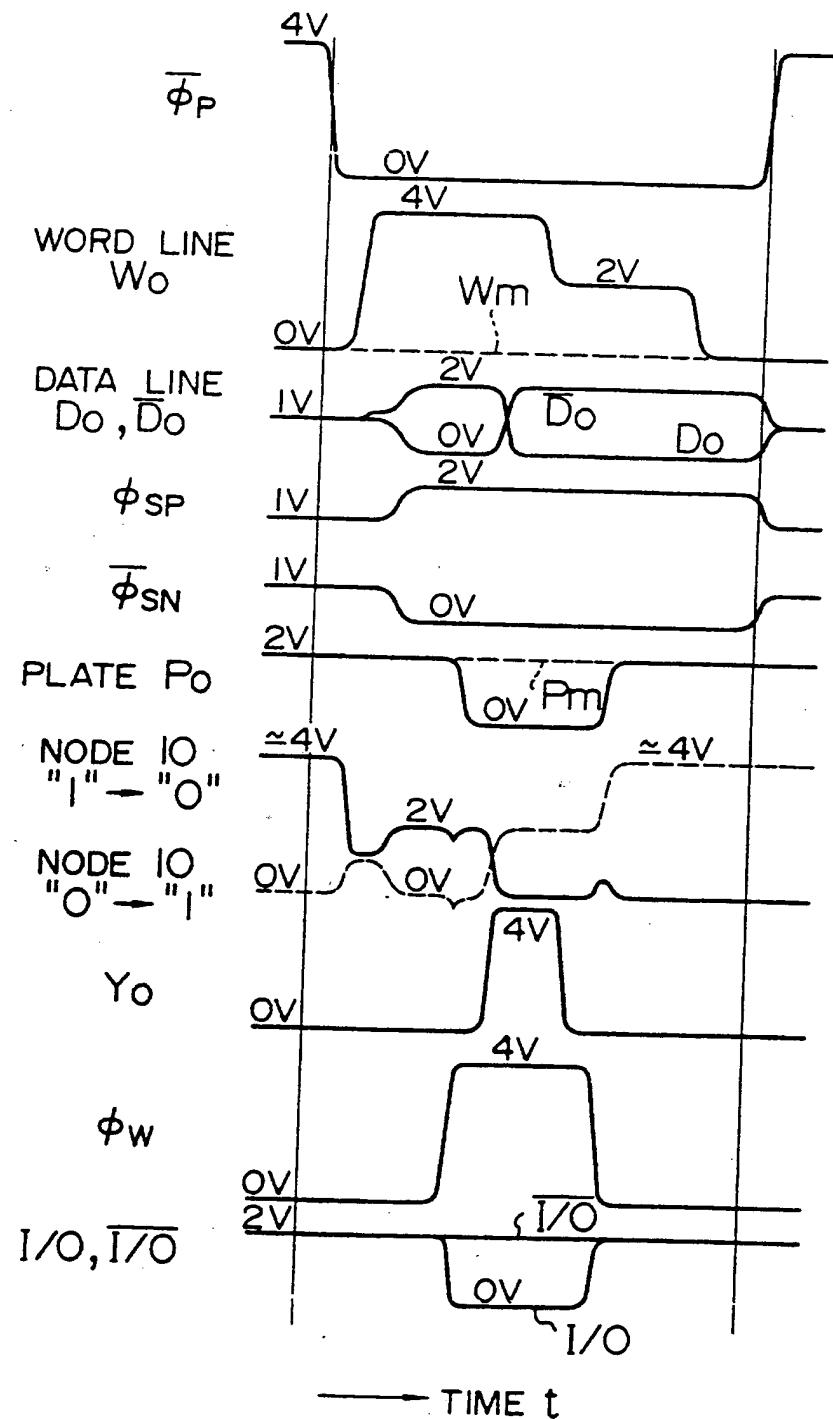


FIG. 39A

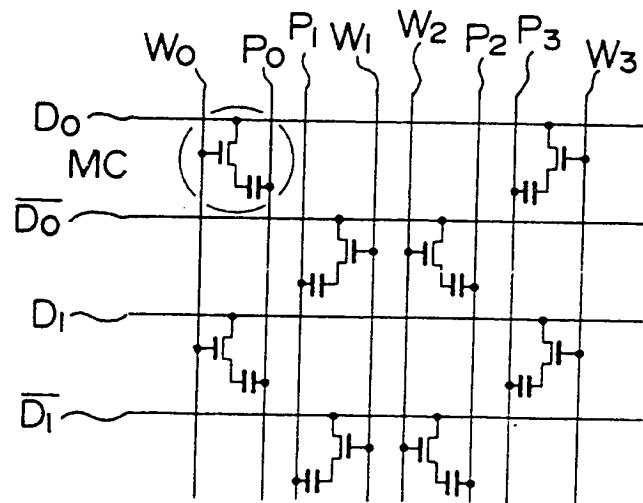
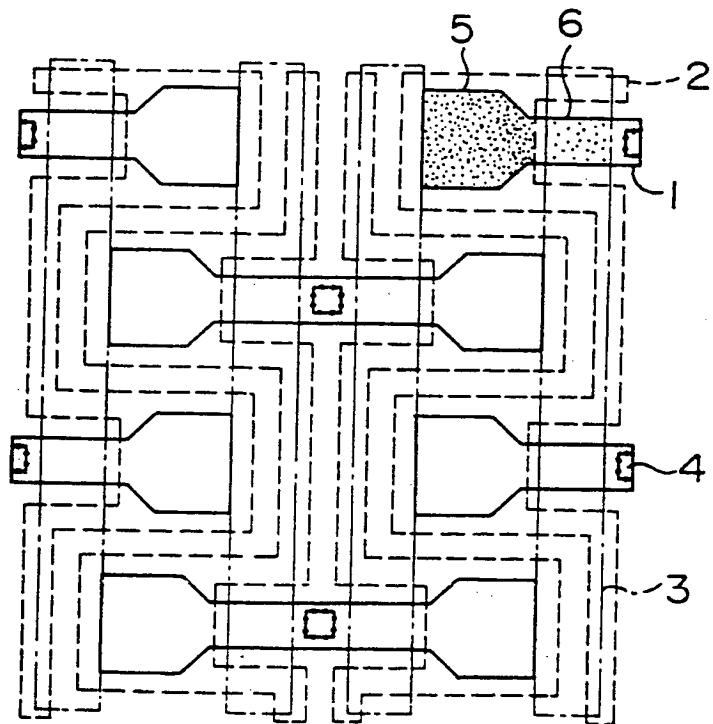


FIG. 39B



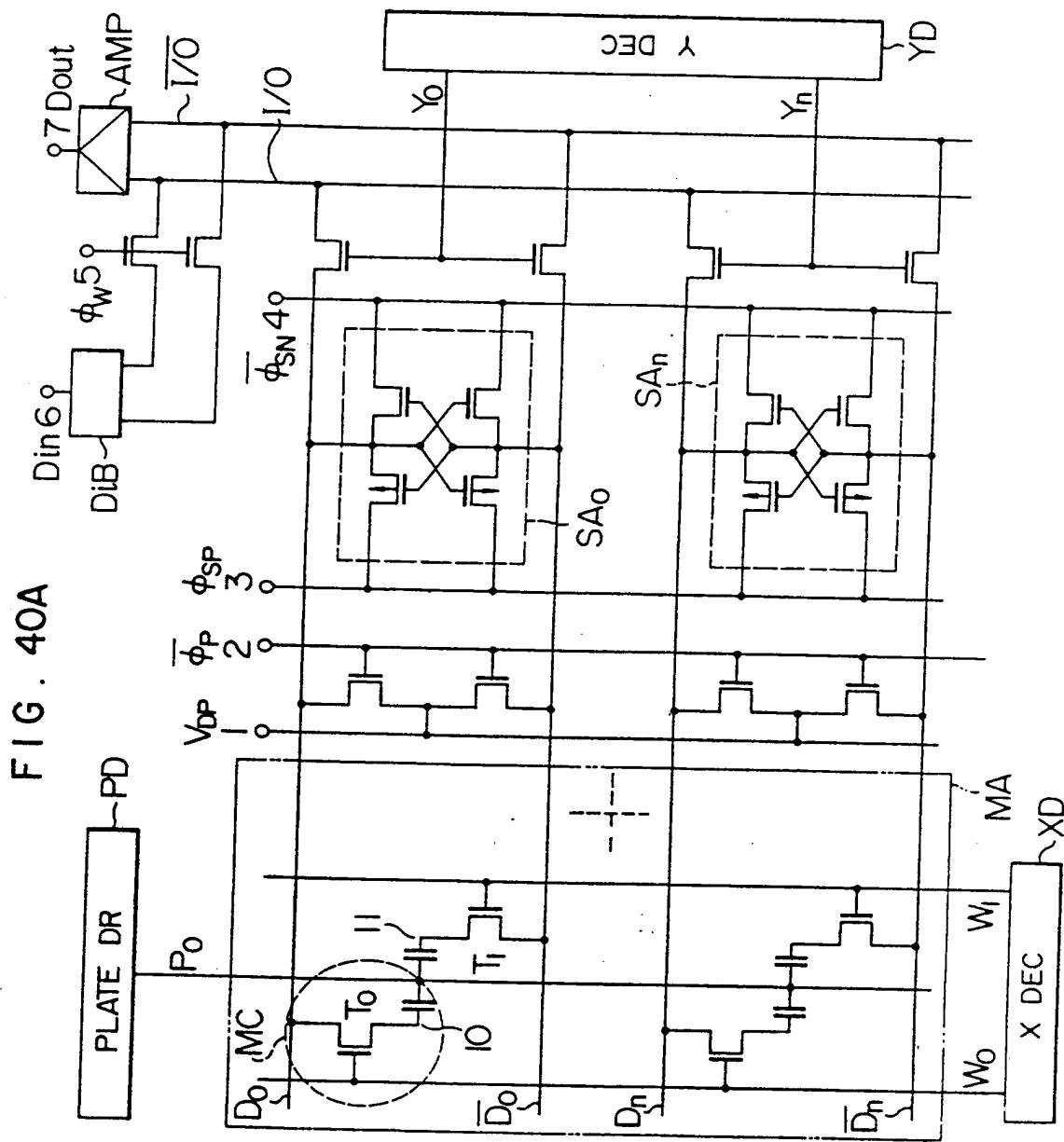


FIG. 40B

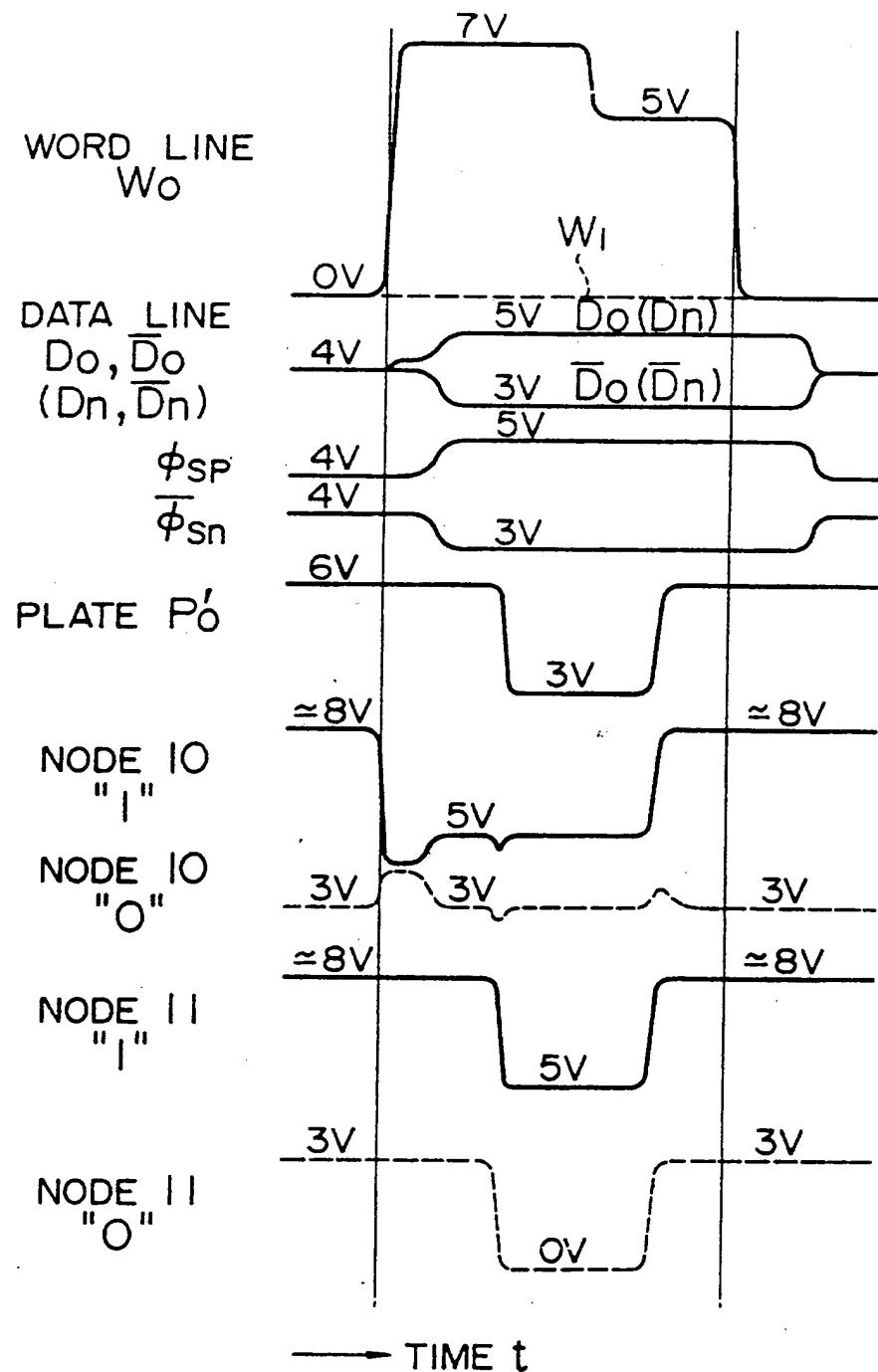


FIG. 40C

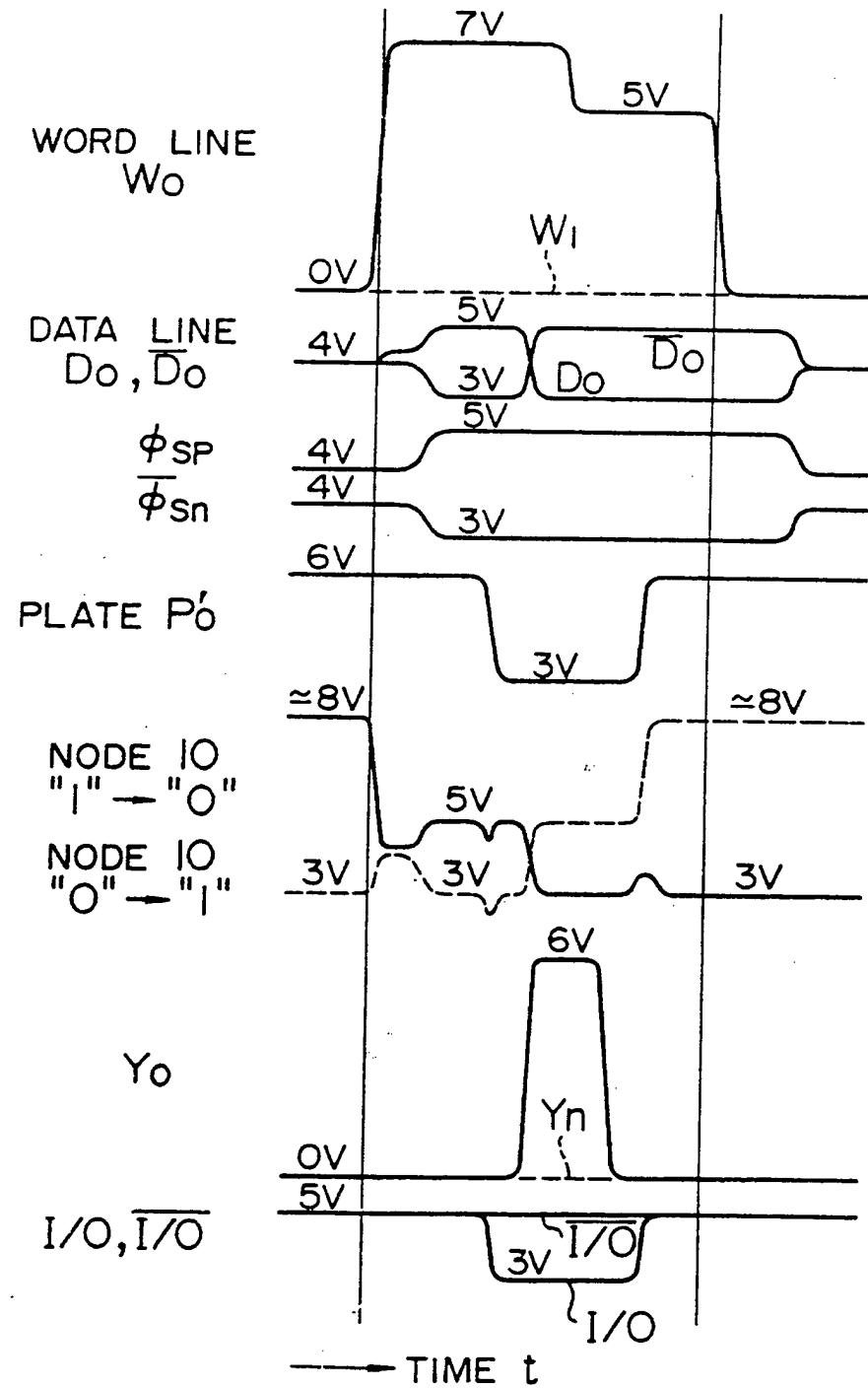


FIG. 4IA

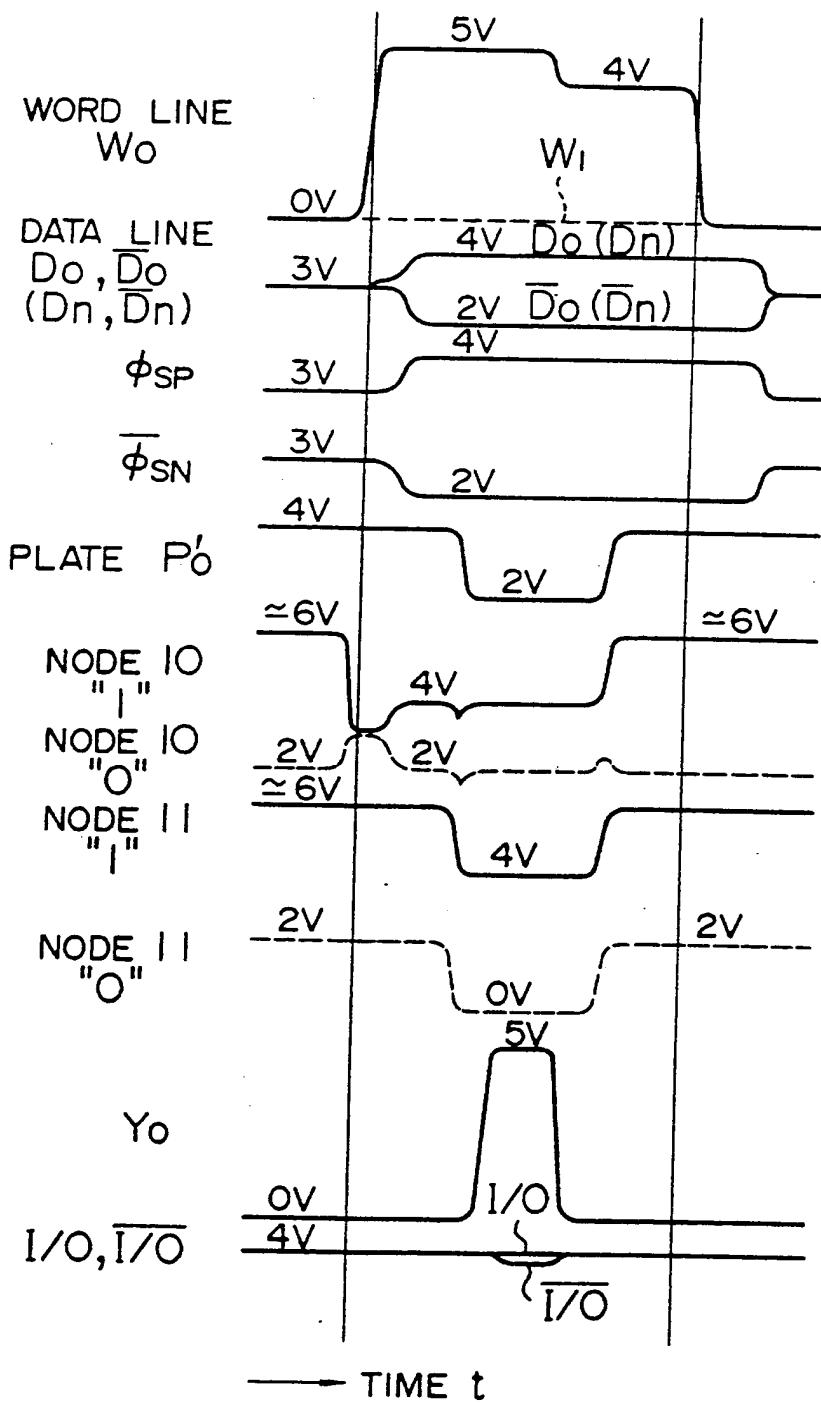


FIG. 4IB

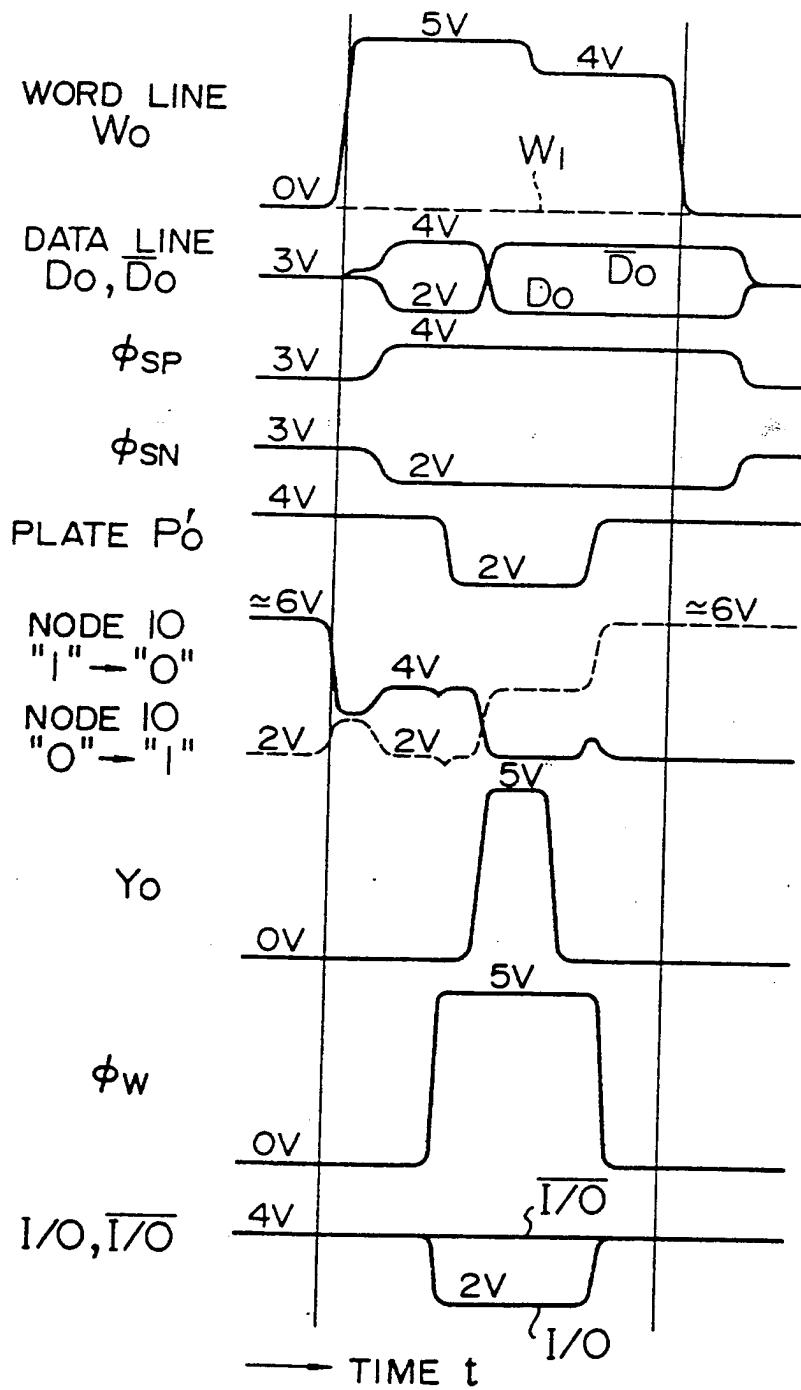


FIG. 42

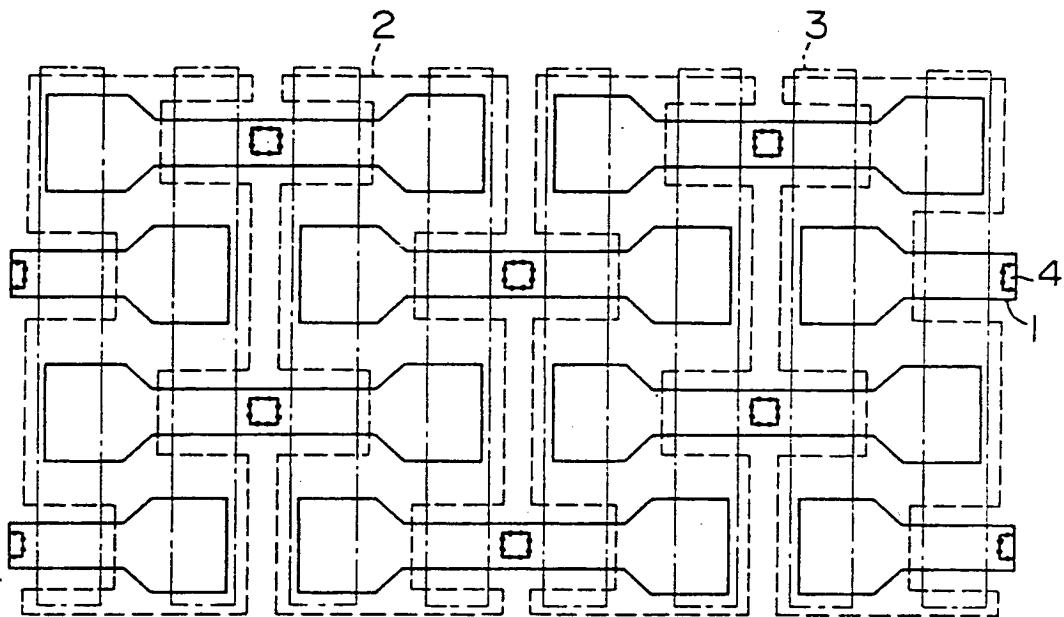


FIG. 43

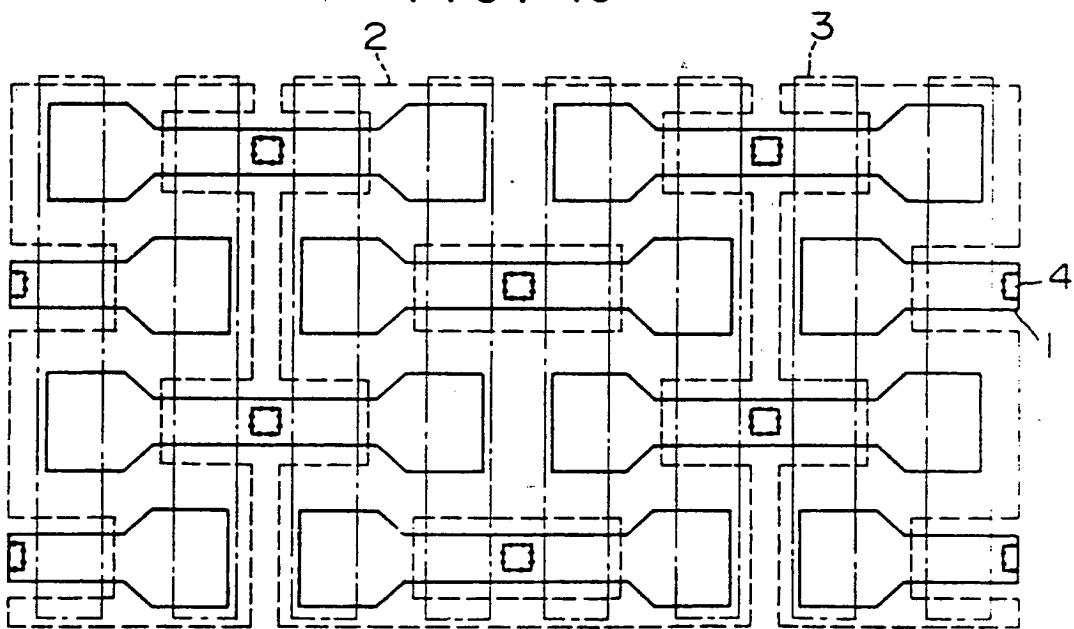


FIG. 44A

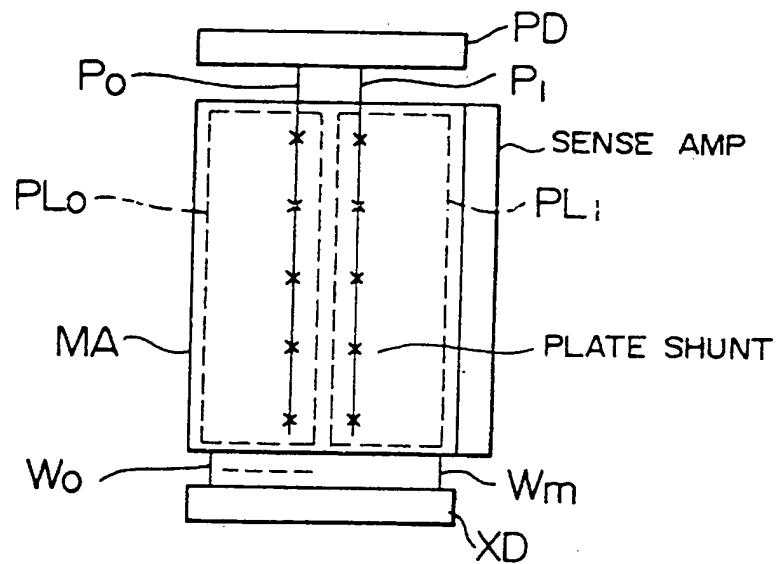


FIG. 44B

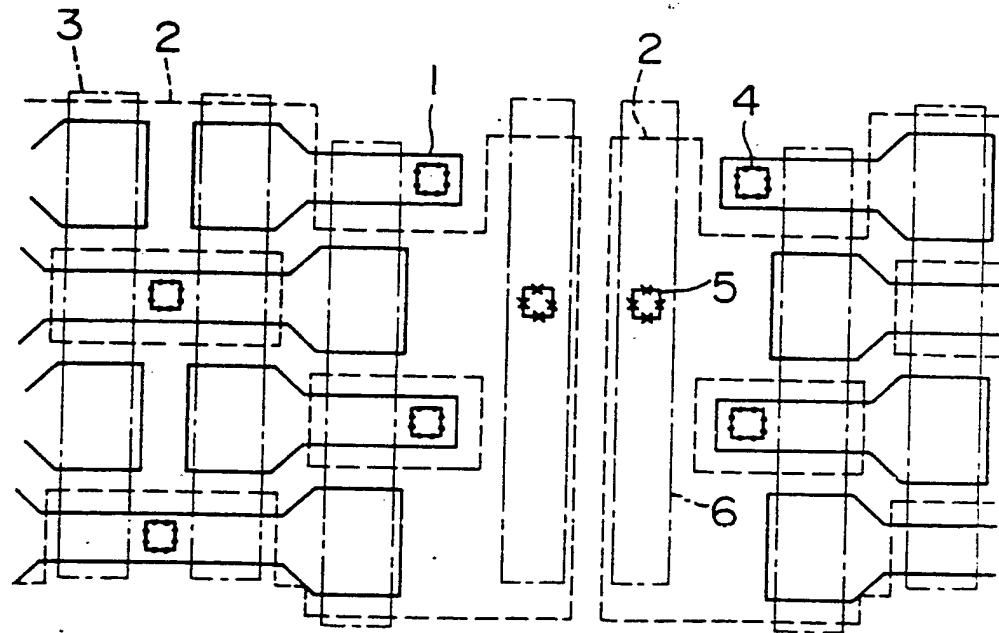


FIG. 45A

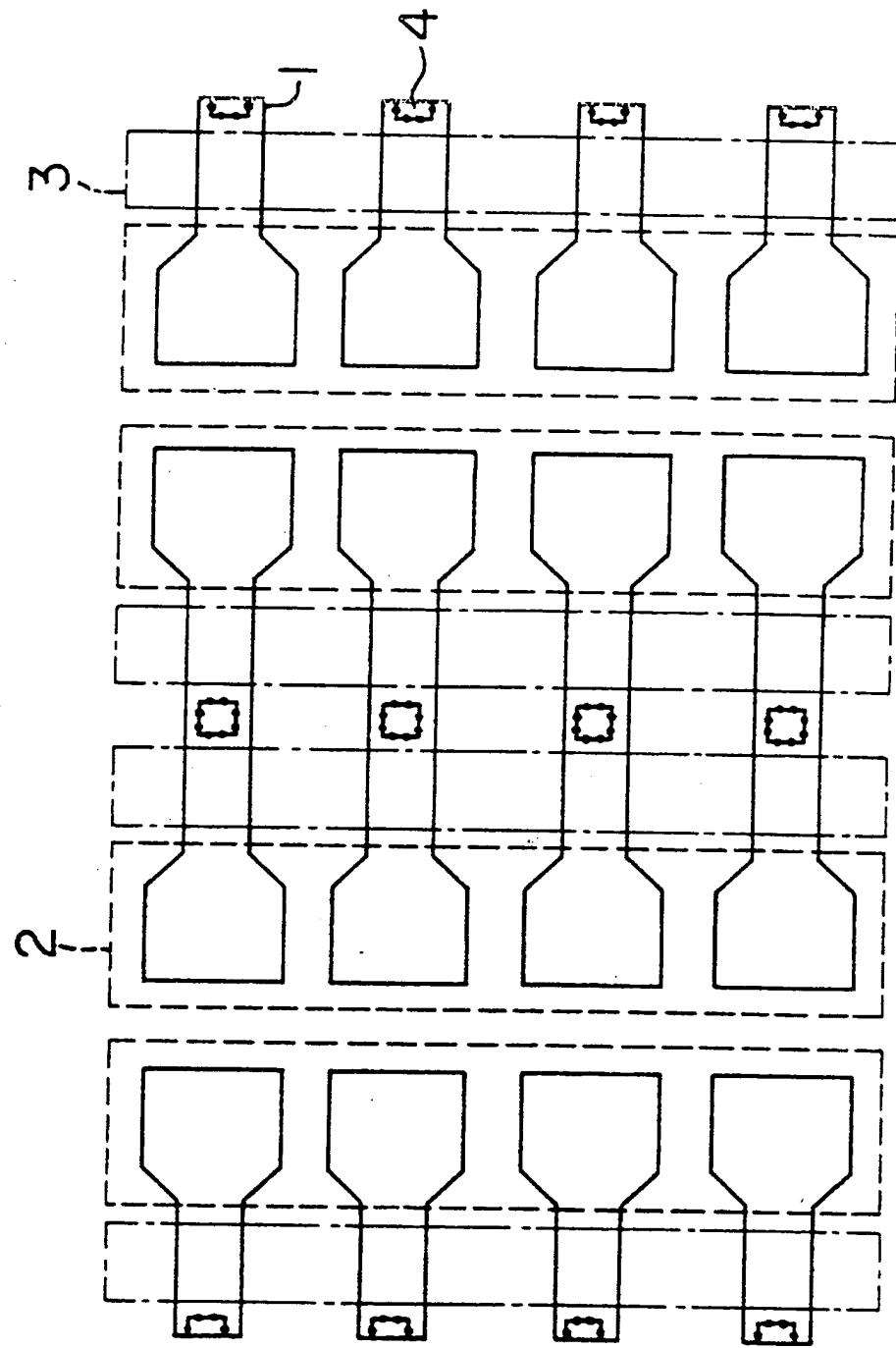


FIG. 45B

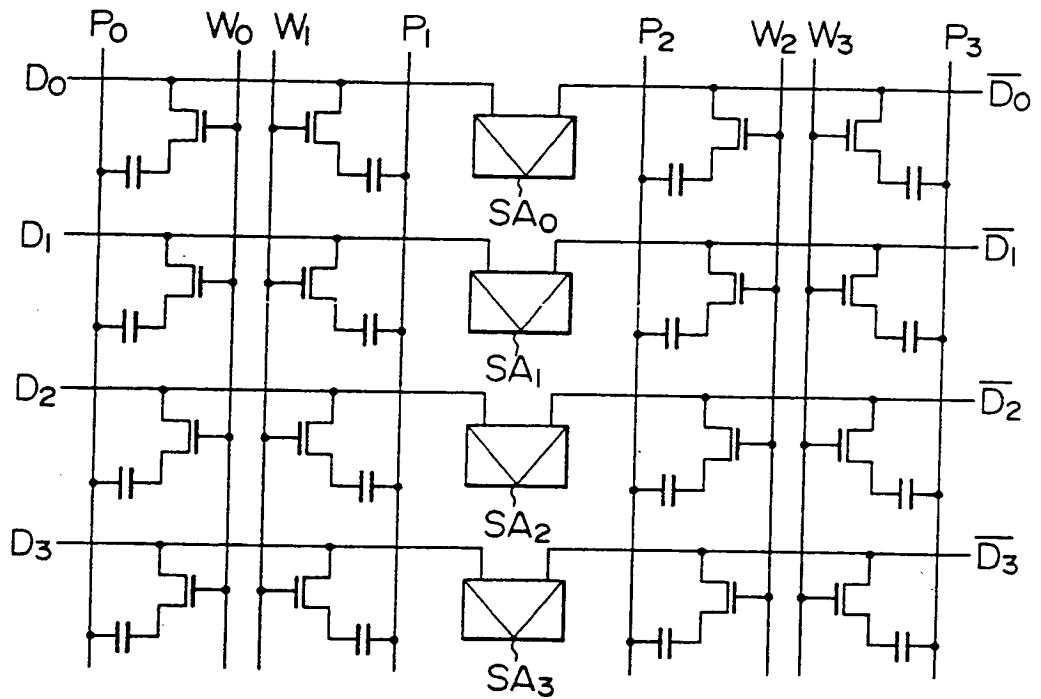


FIG. 45C

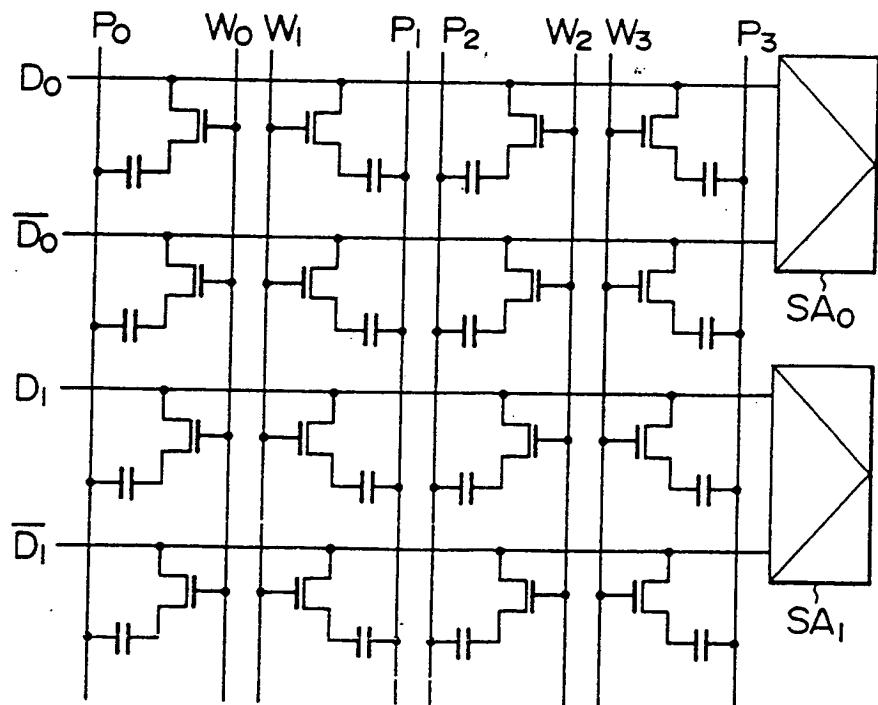


FIG. 46

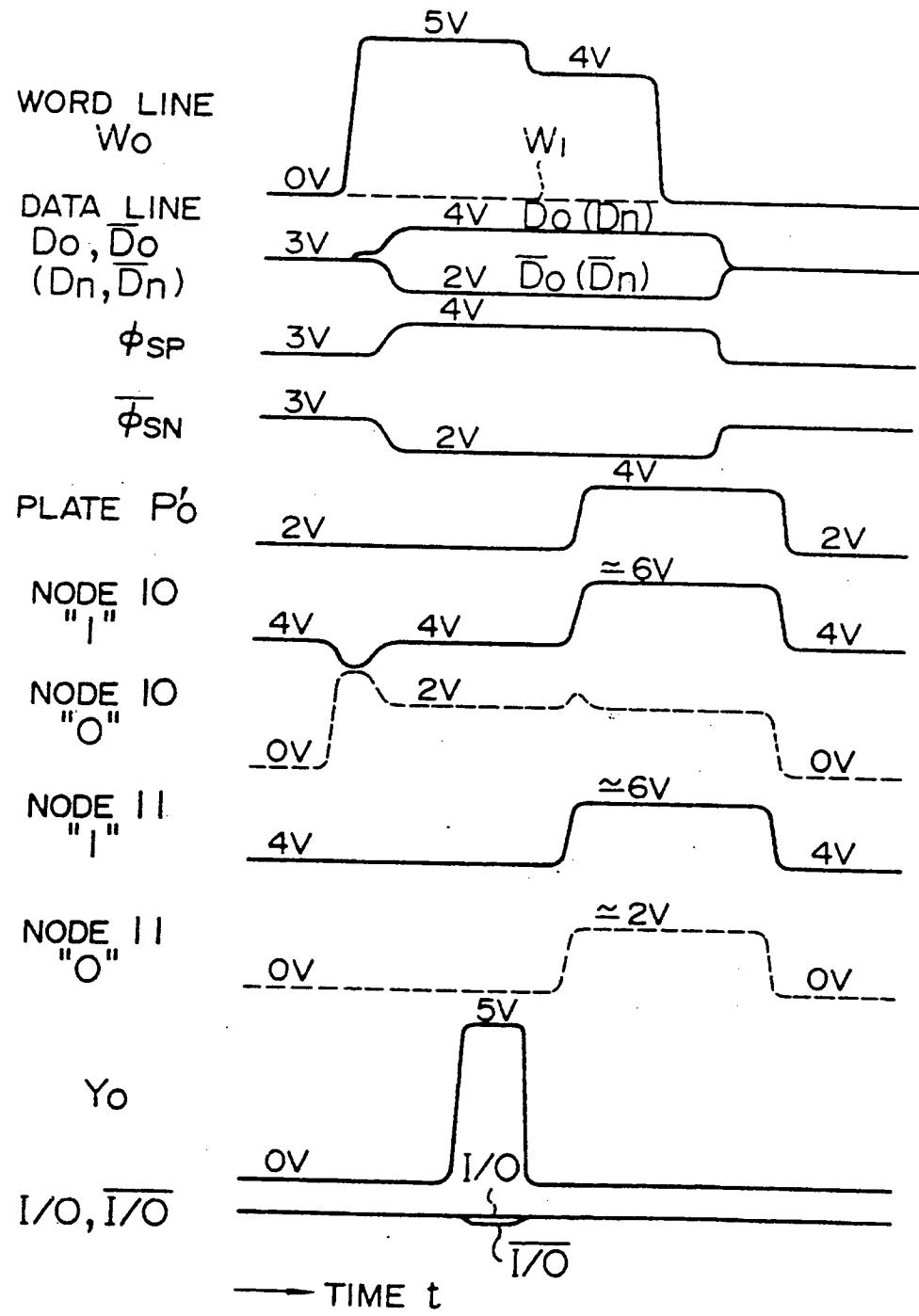


FIG. 47

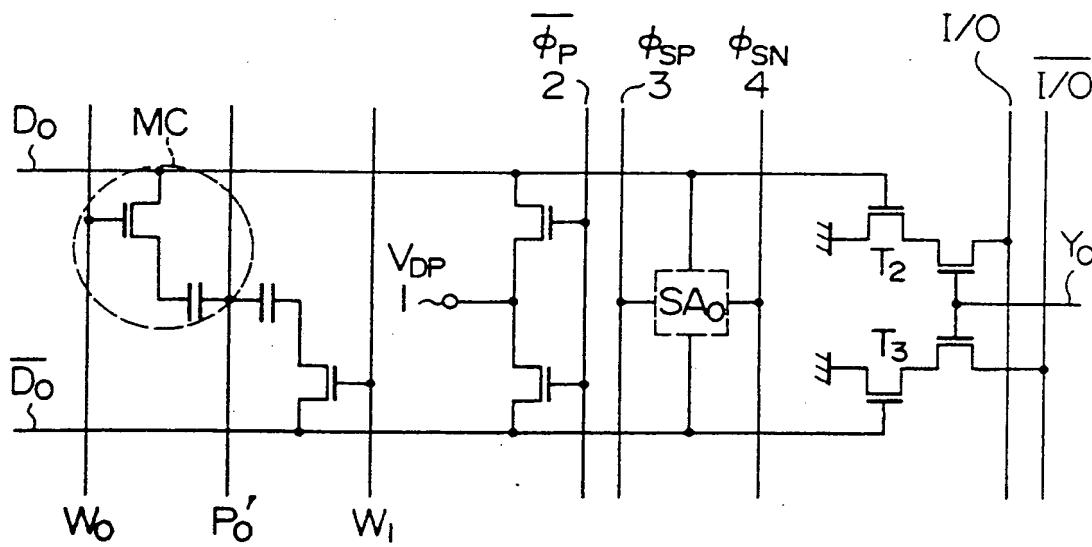


FIG. 48

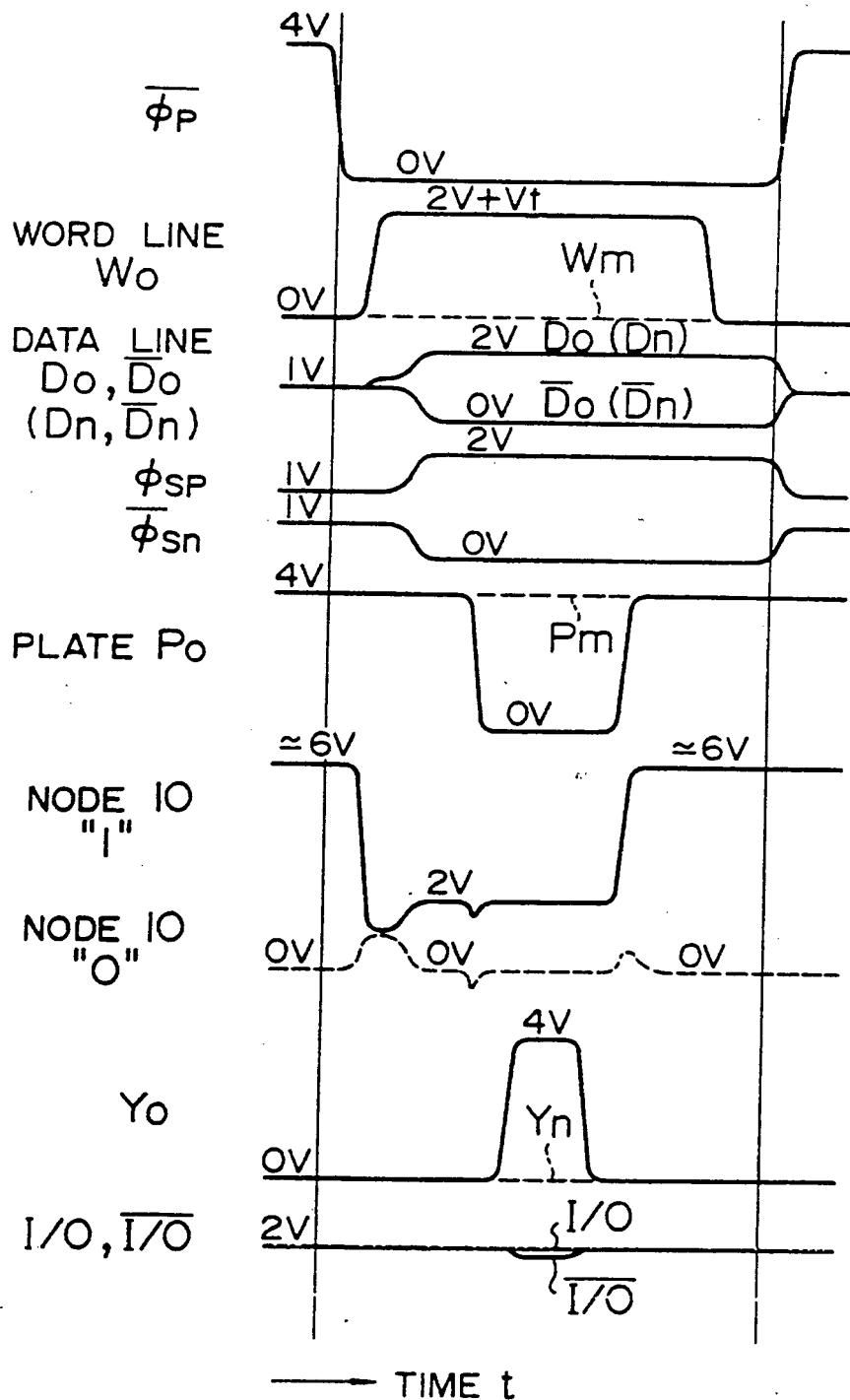


FIG. 49A

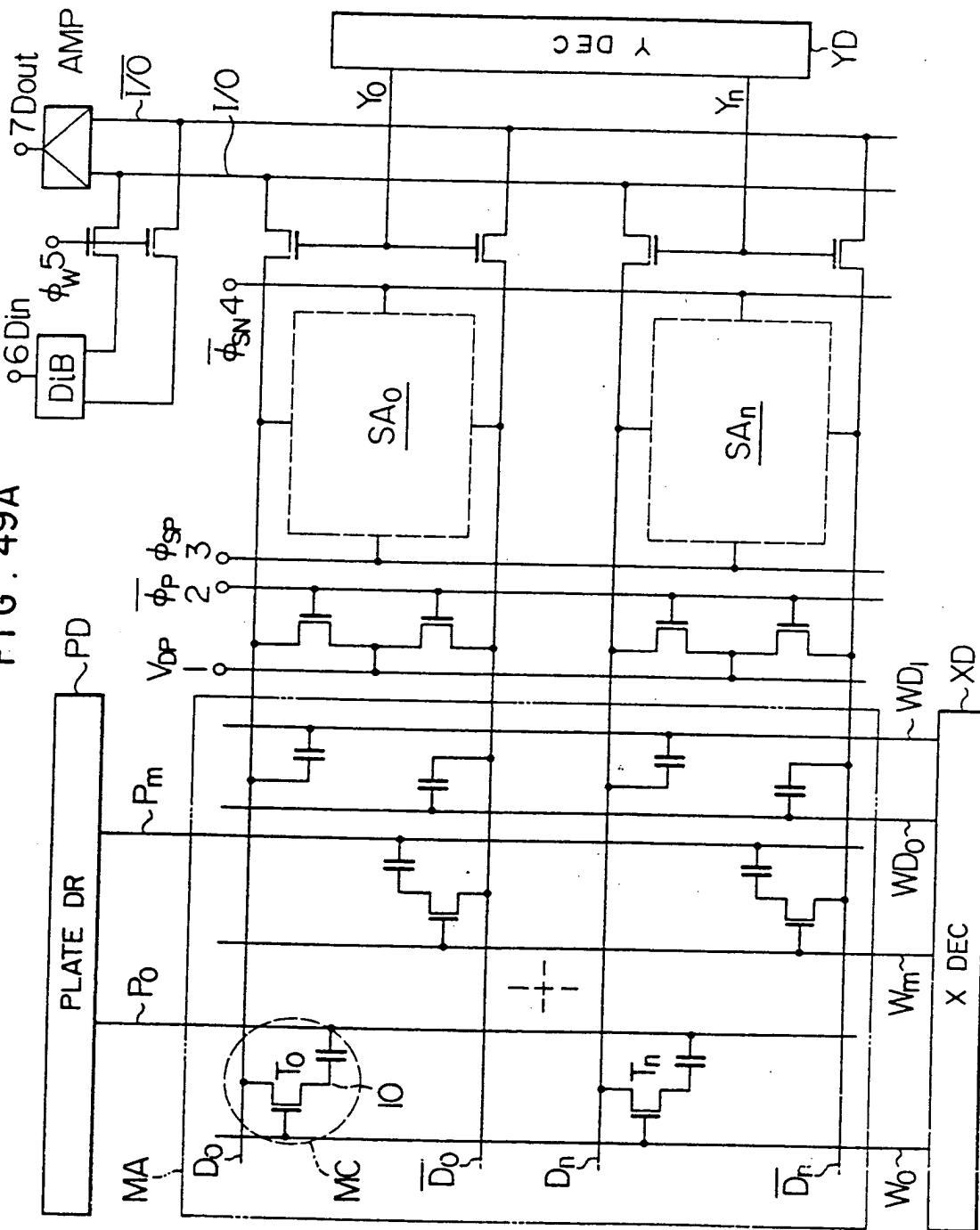


FIG. 49B

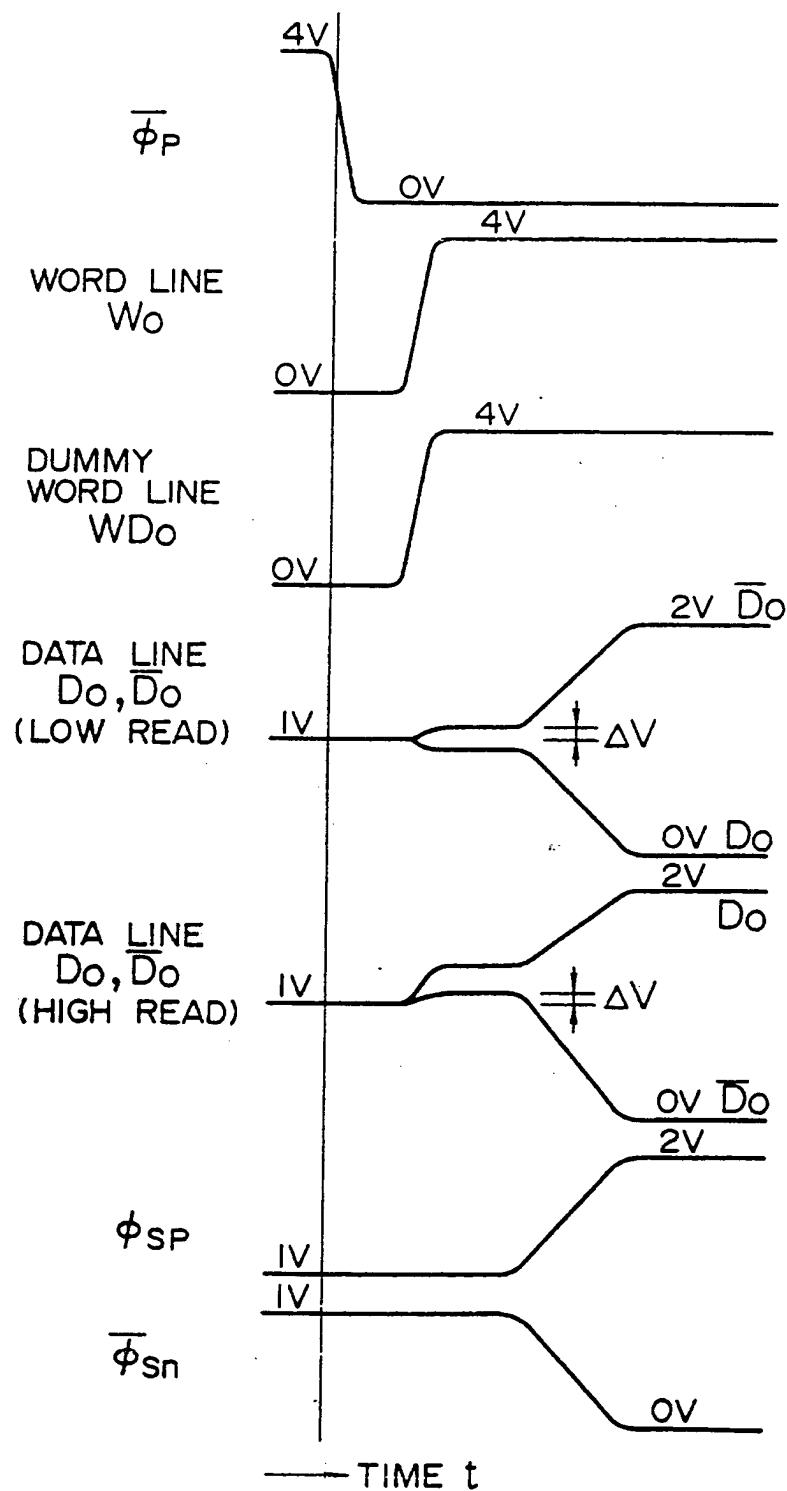


FIG. 50A

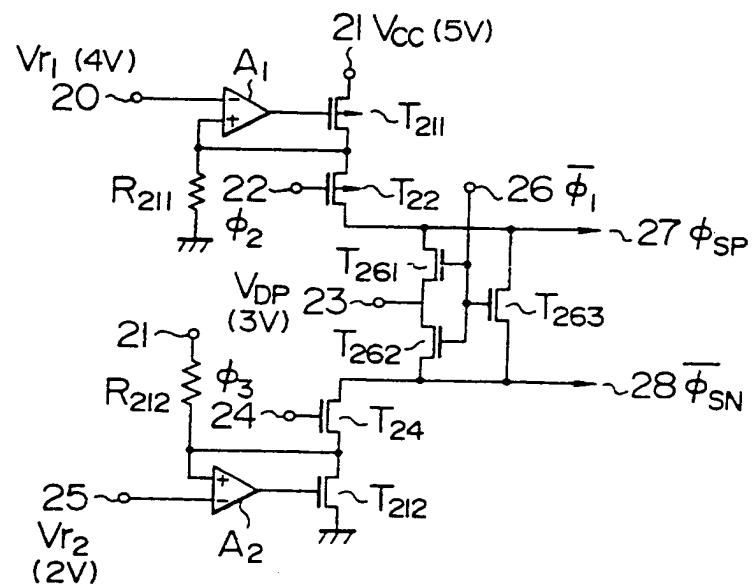


FIG. 50B

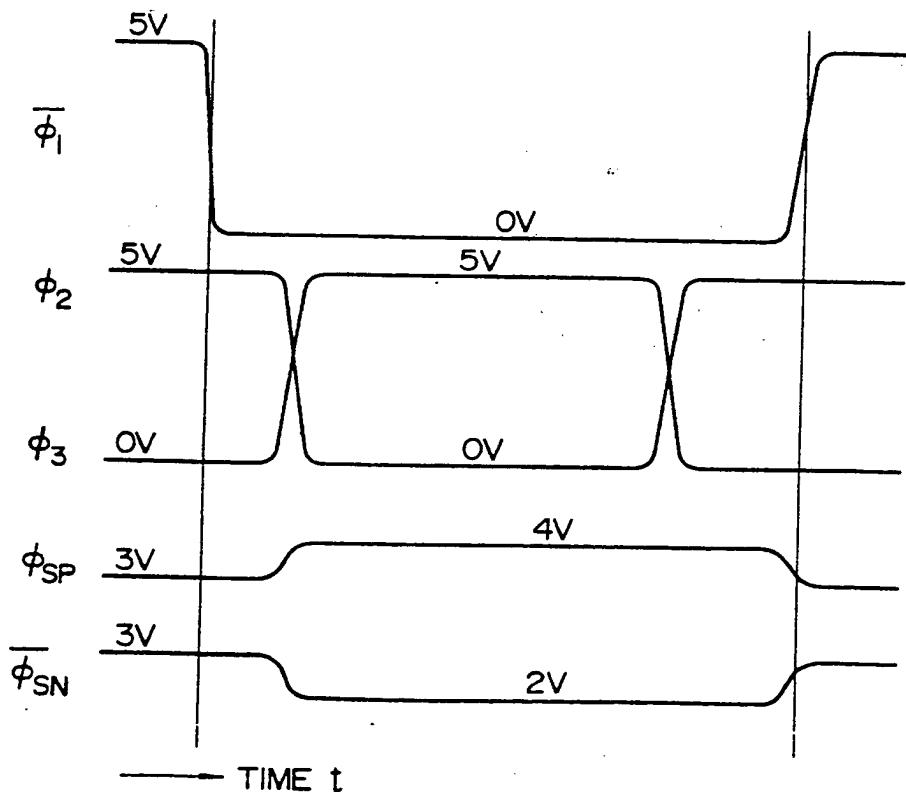


FIG. 51A

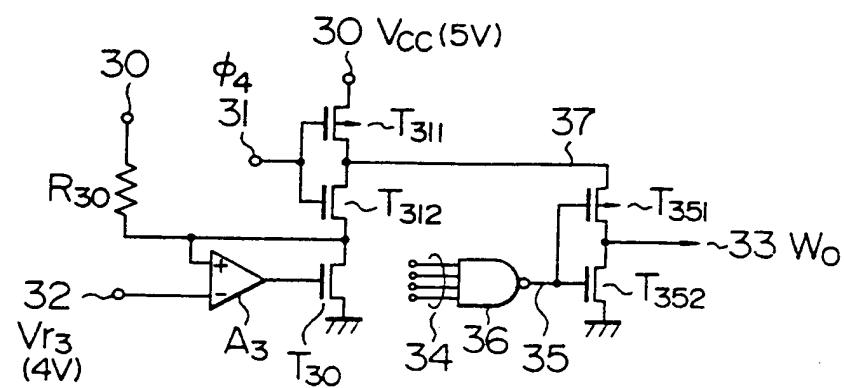
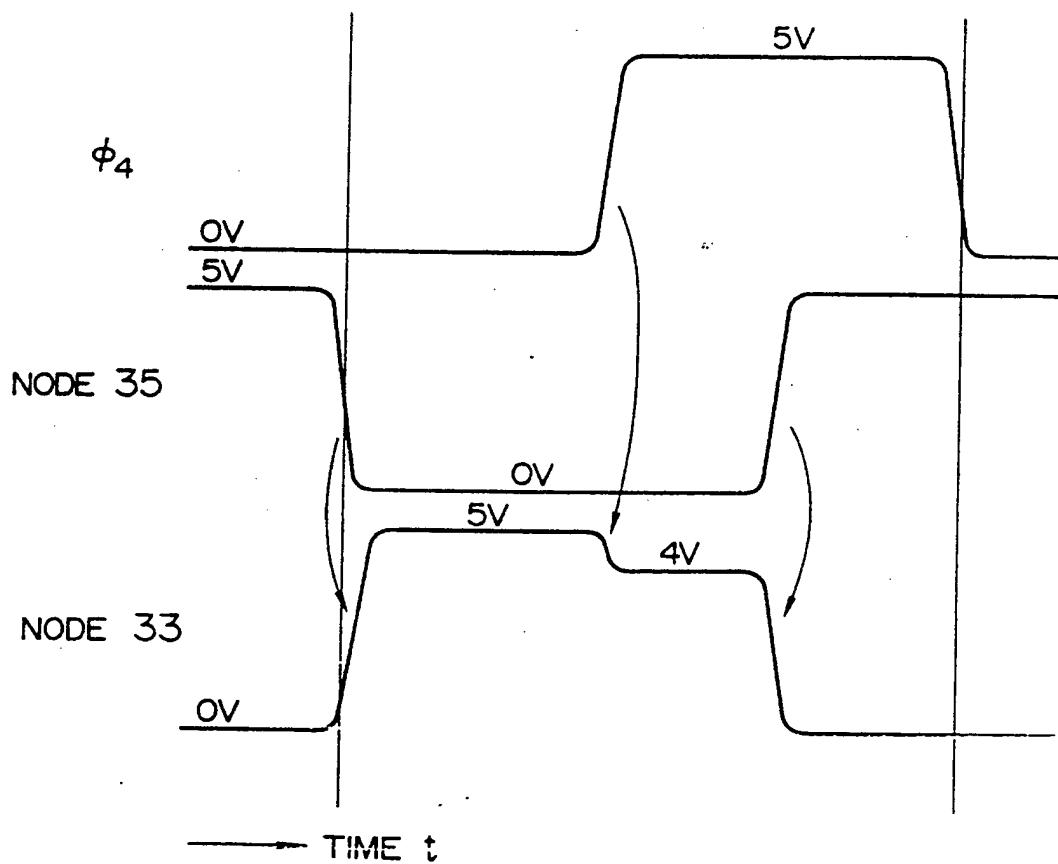


FIG. 51B



09664328 096630

FIG. 52A

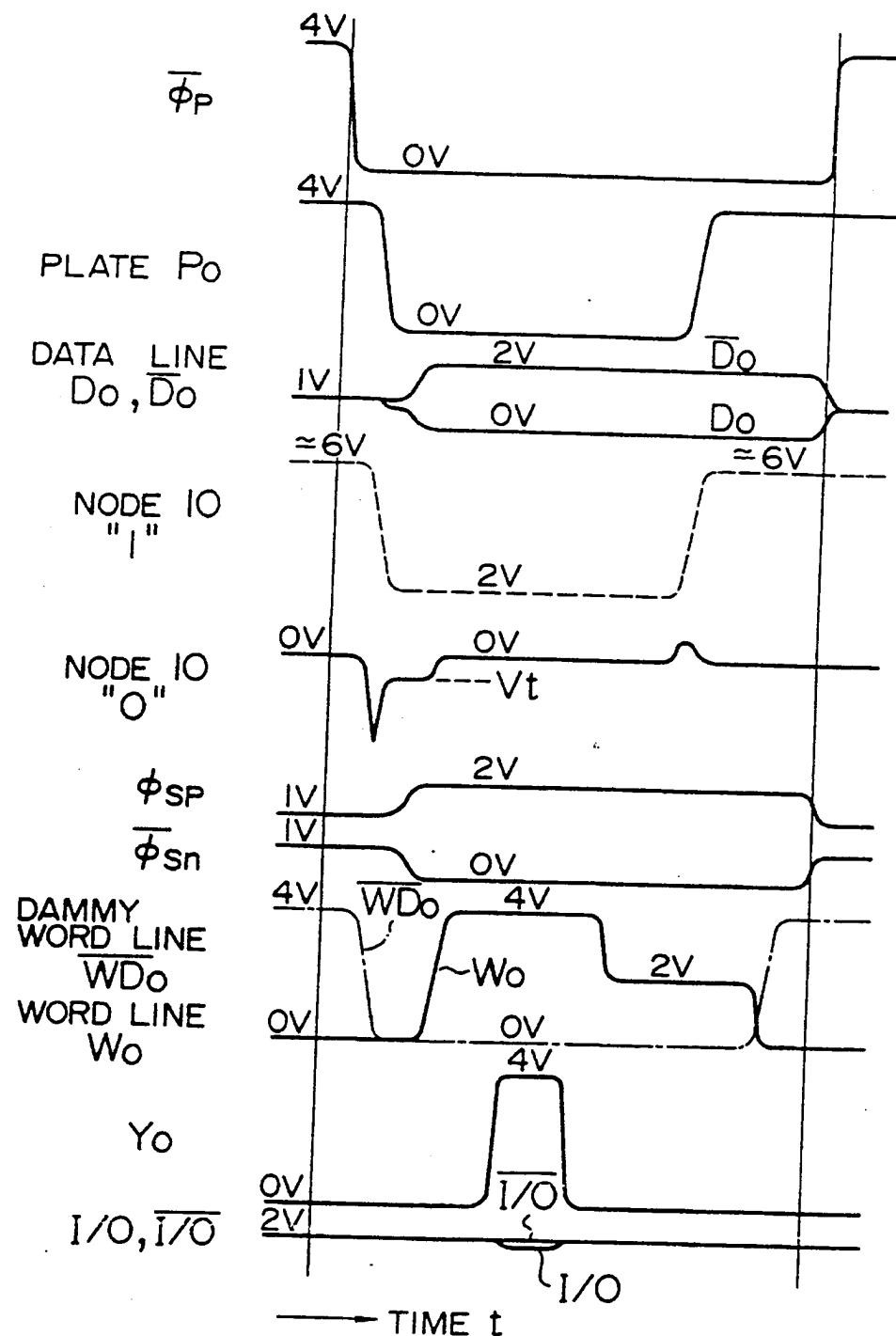


FIG. 52B

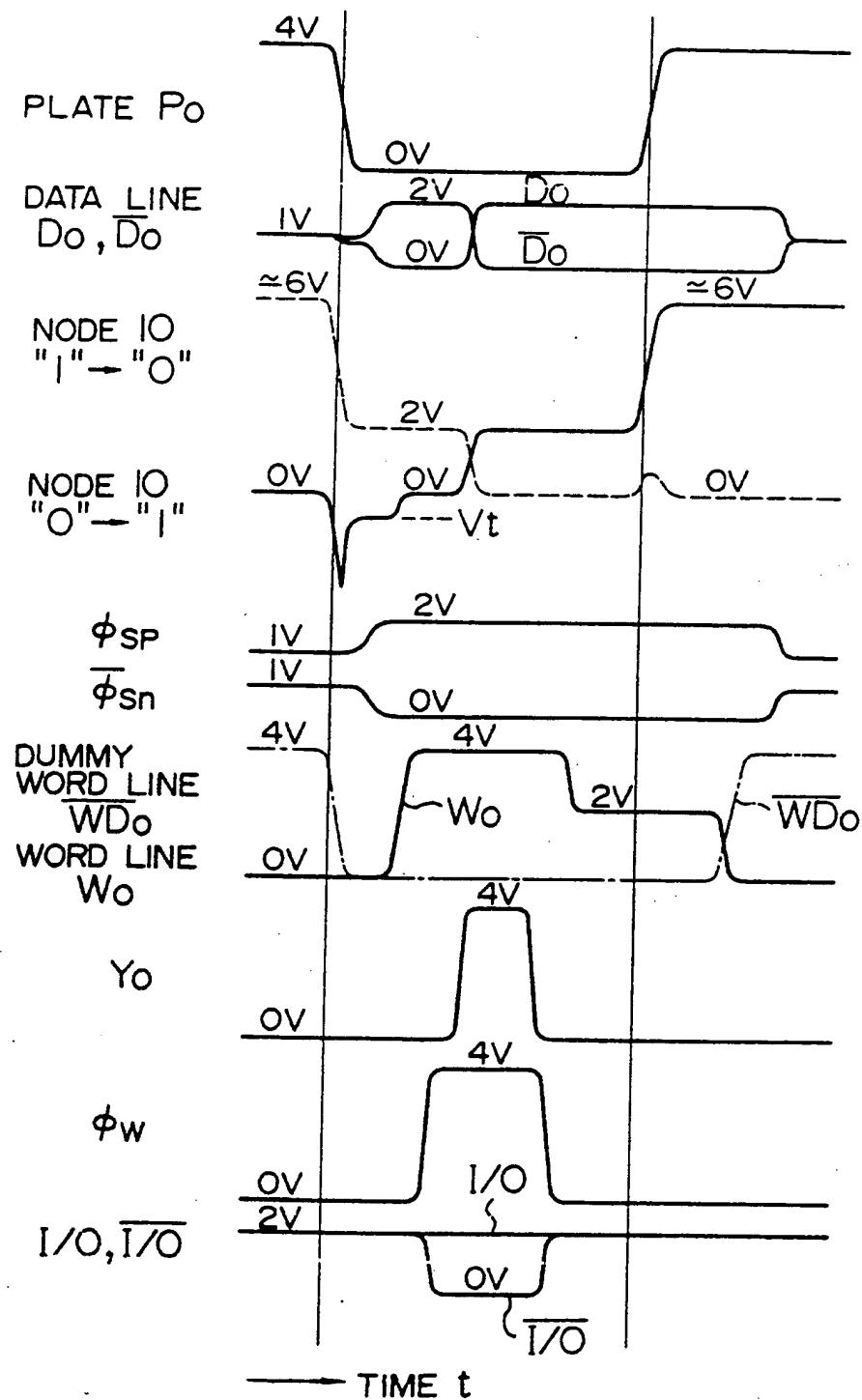


FIG. 53A

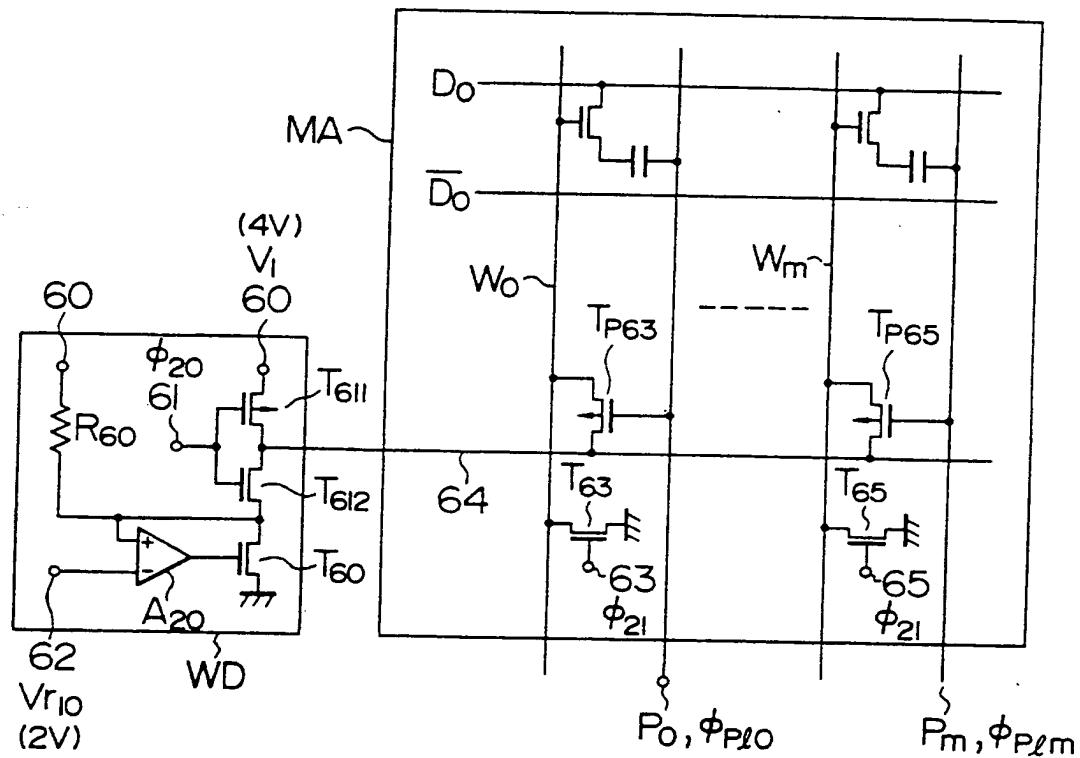
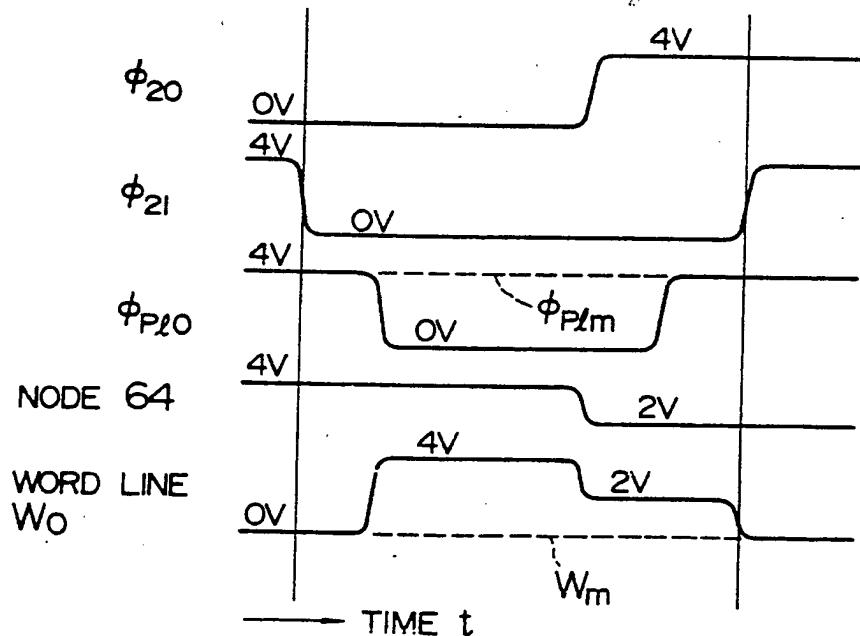


FIG. 53B



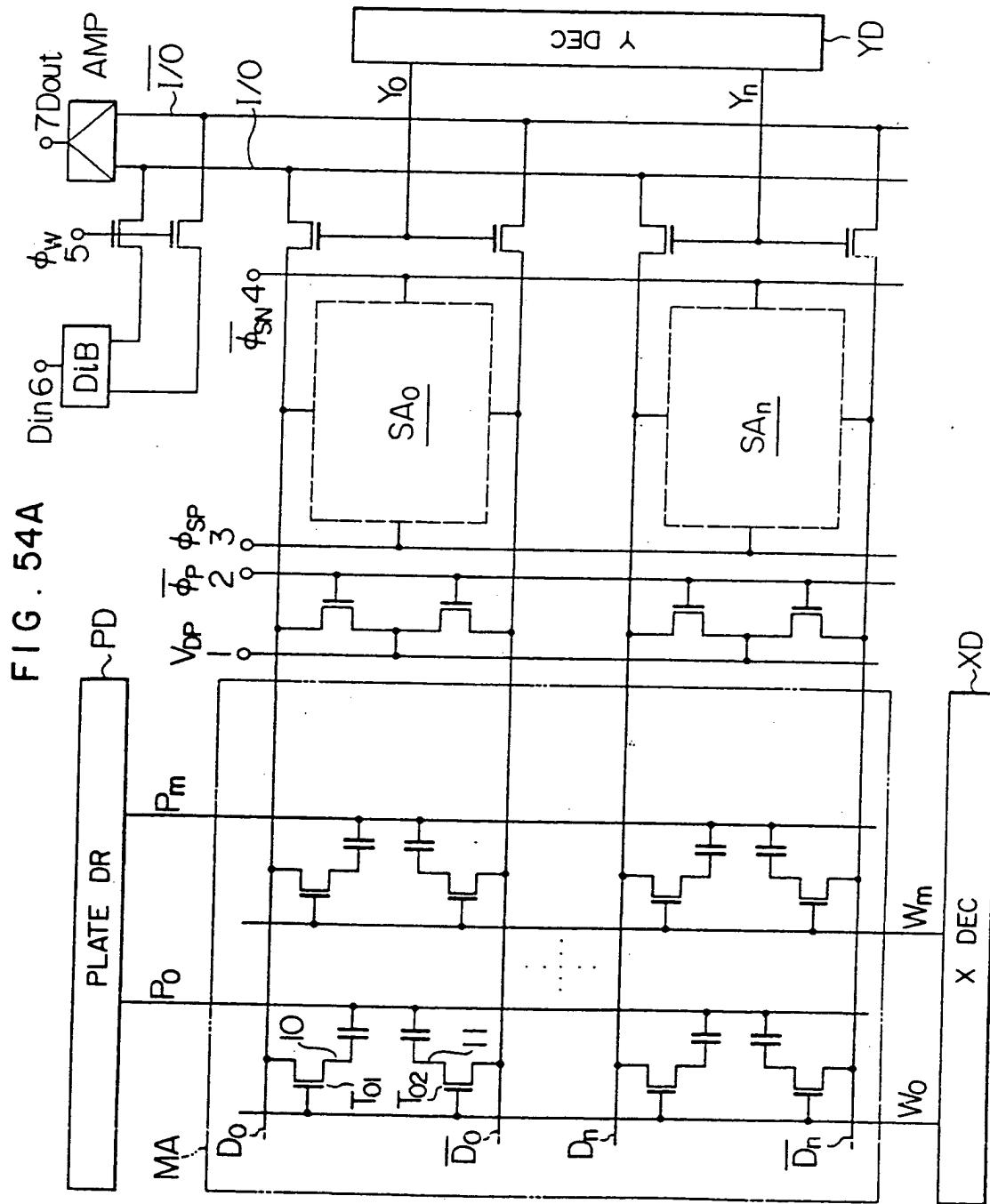


FIG. 54B

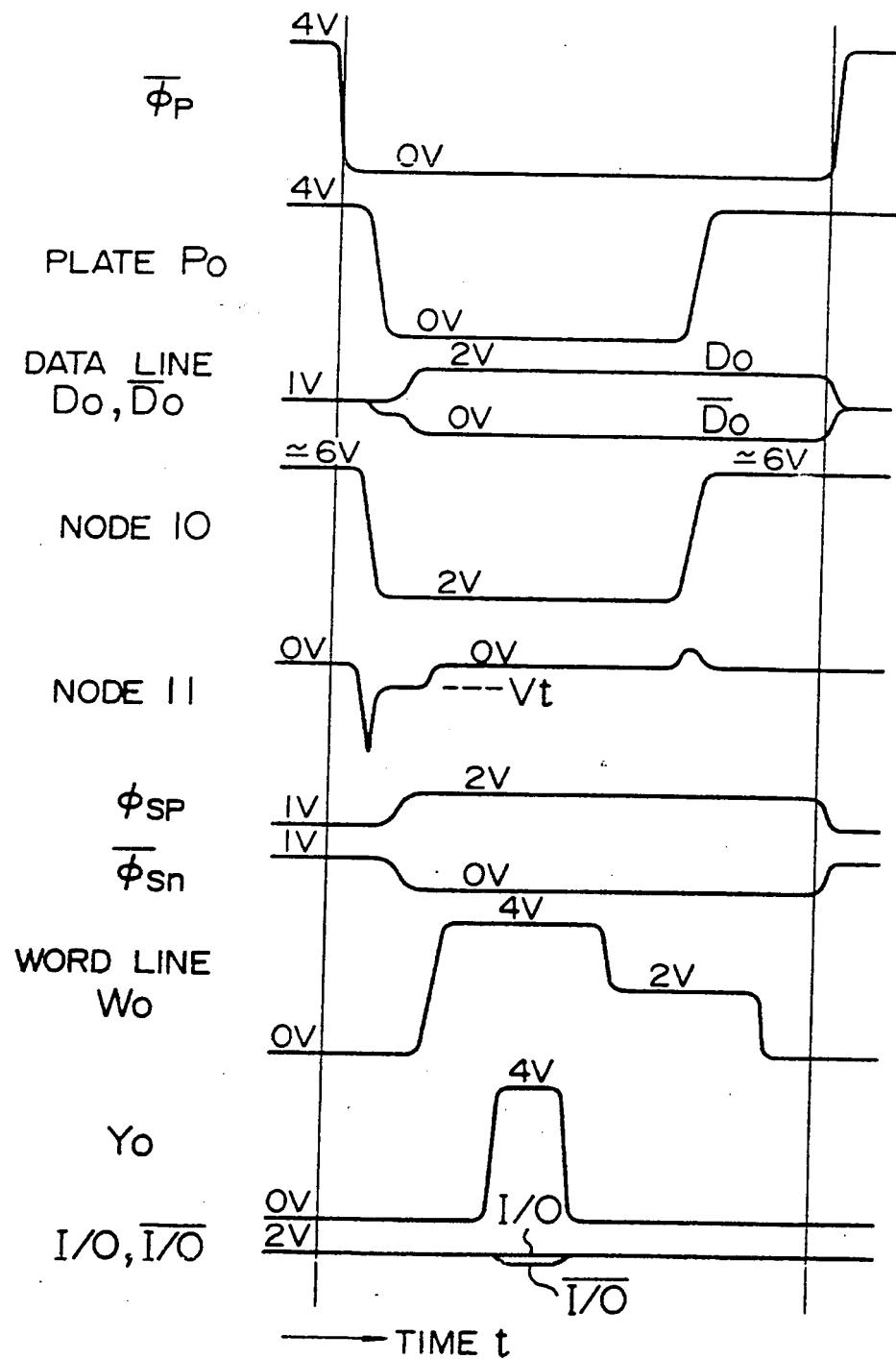


FIG. 54C

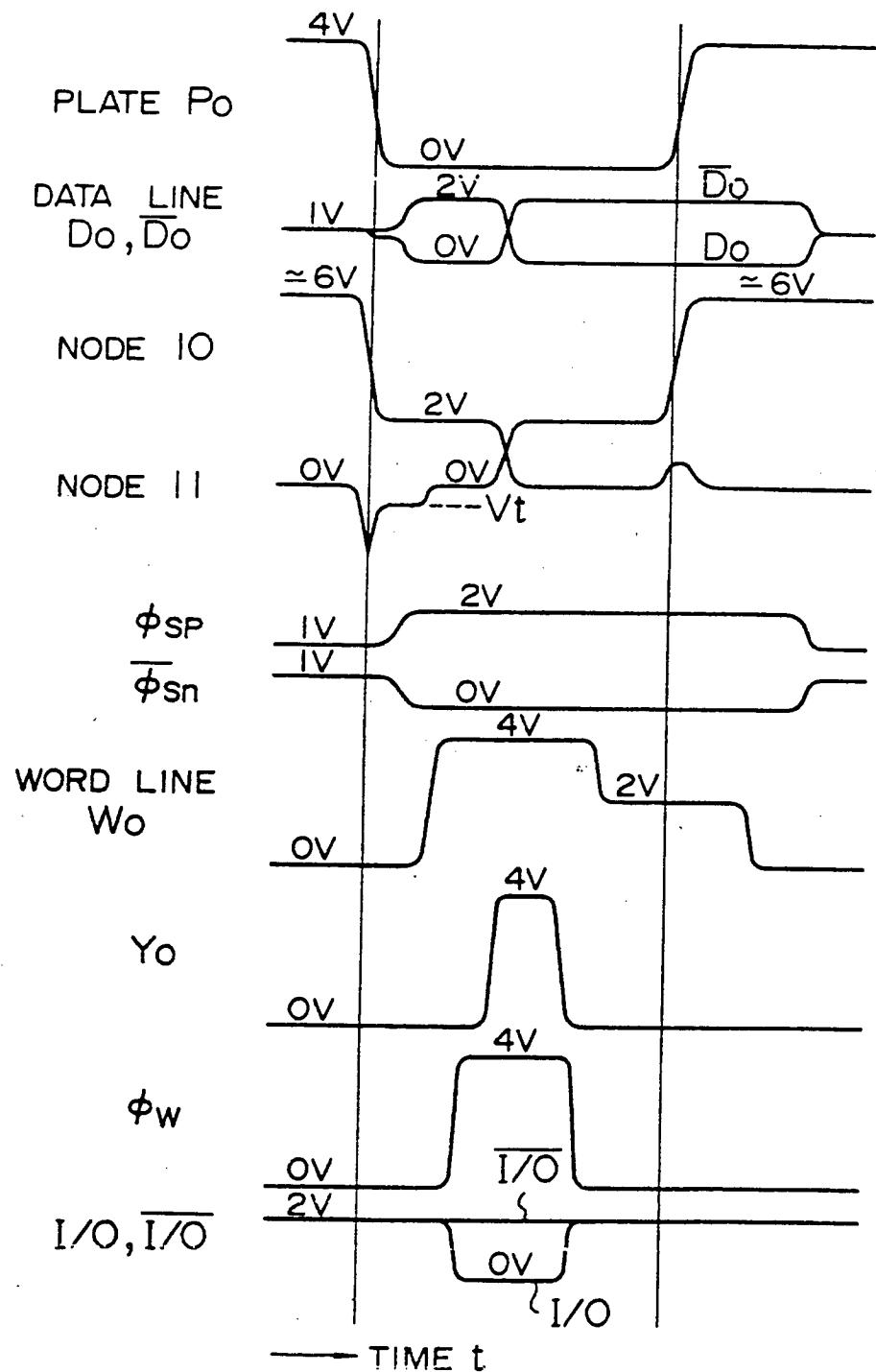


FIG. 55A

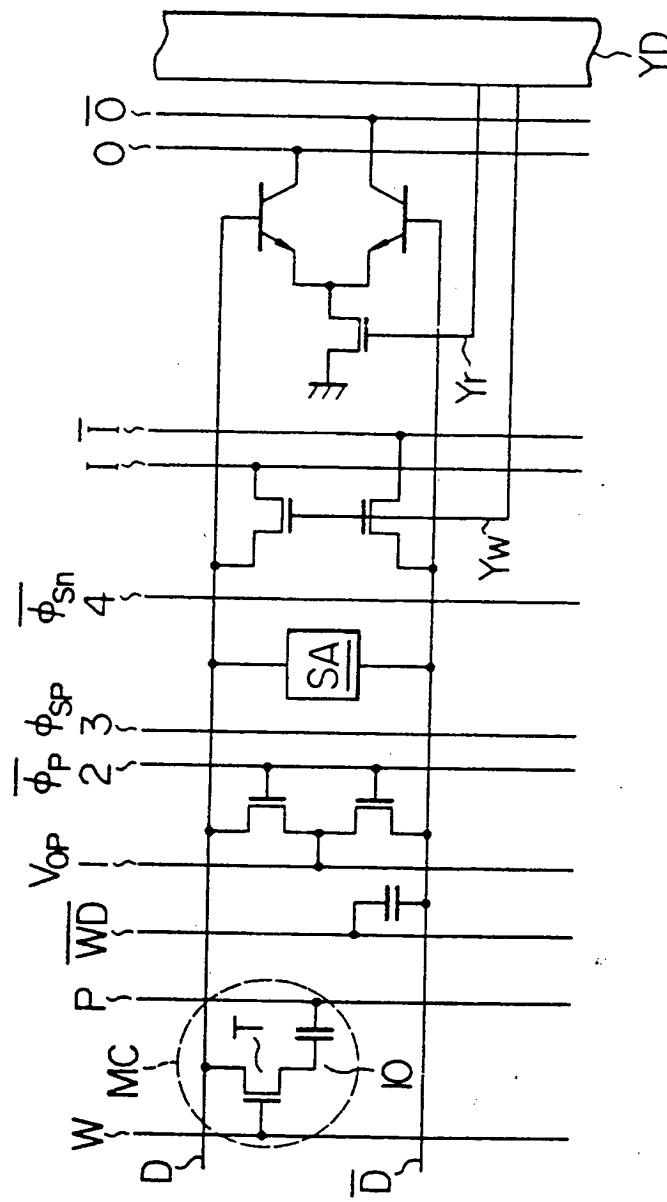


FIG. 59

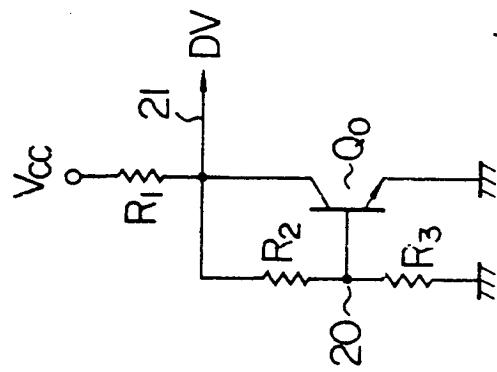


FIG. 55B

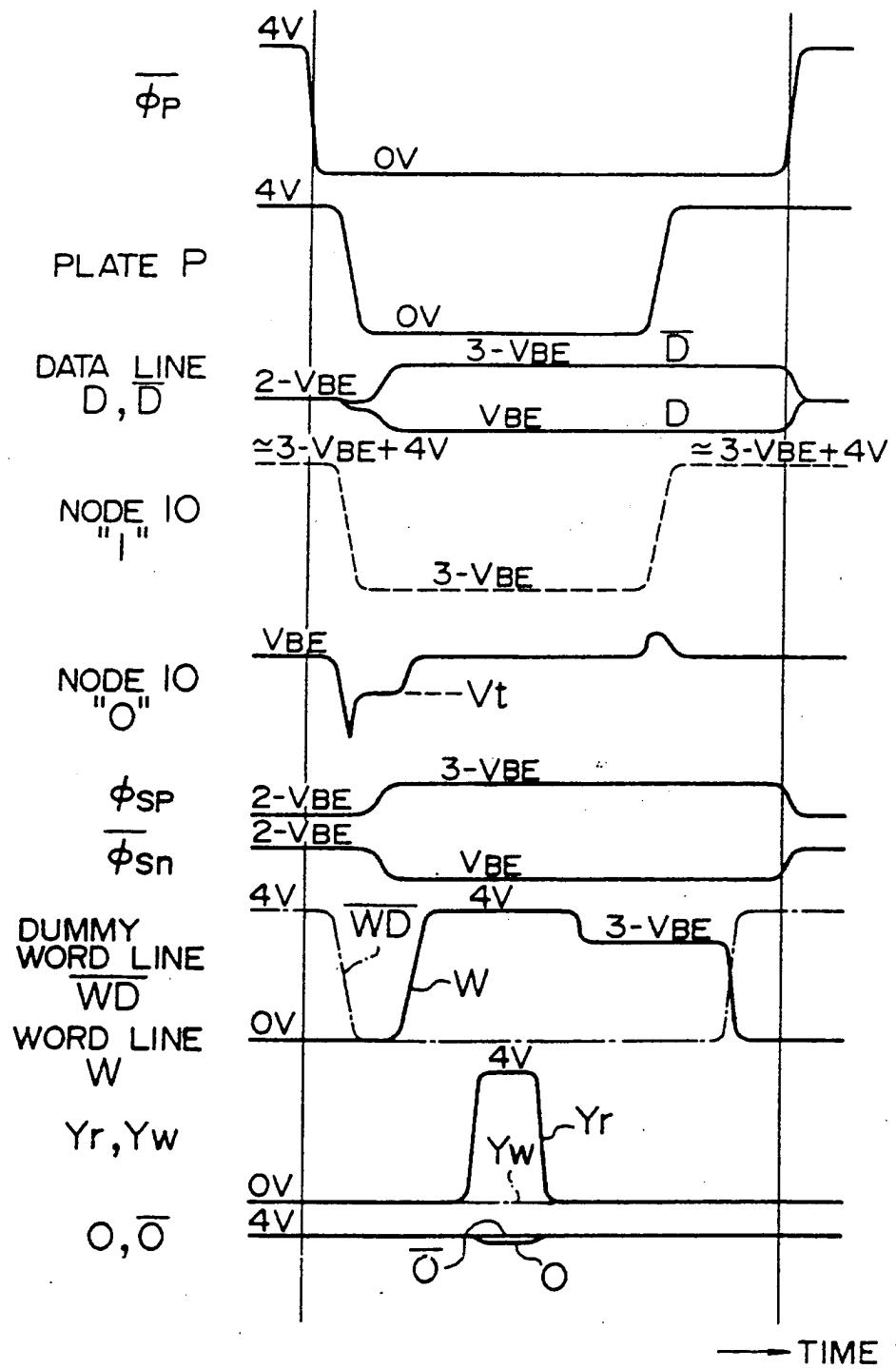


FIG. 55C

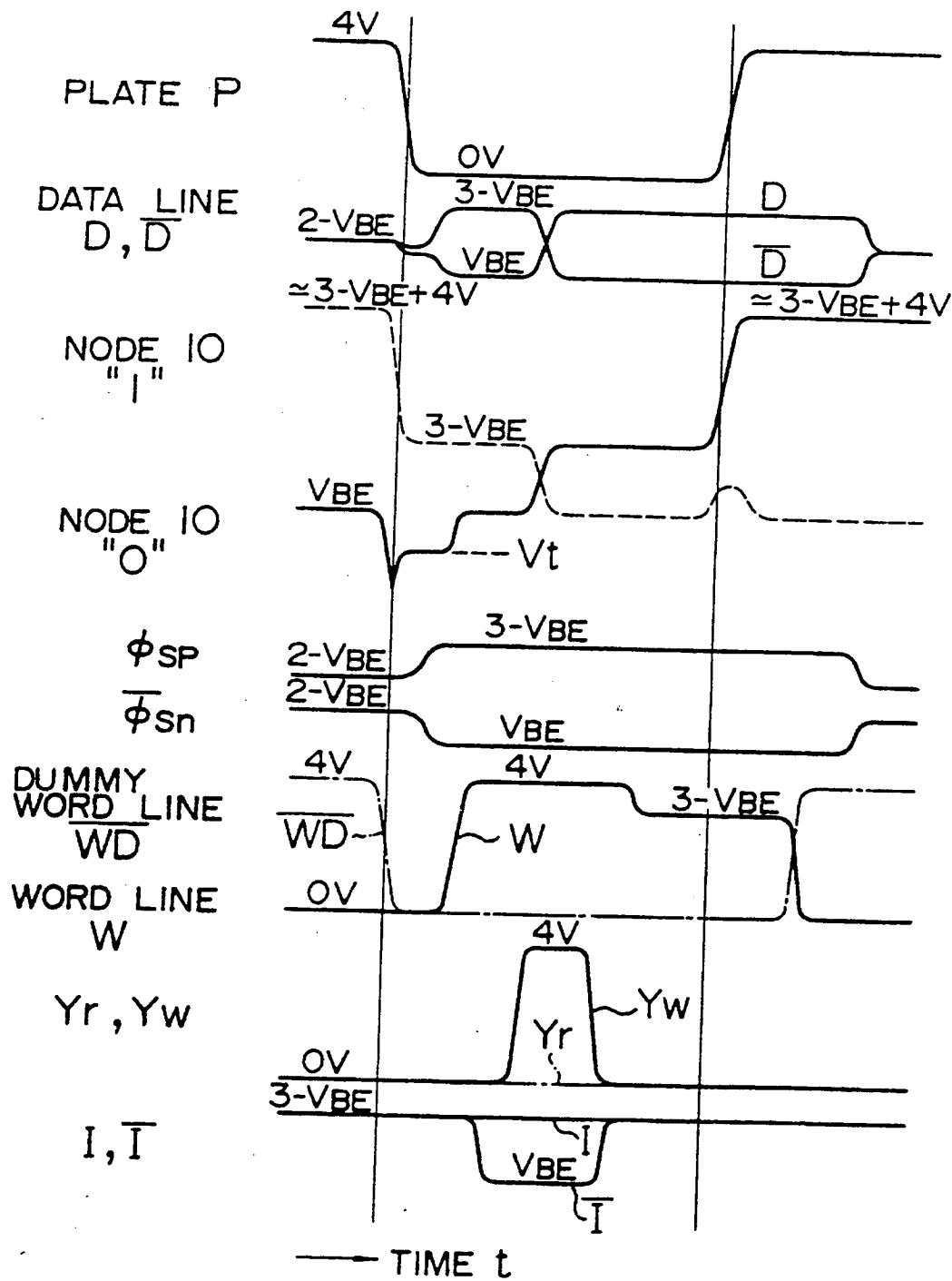


FIG. 56

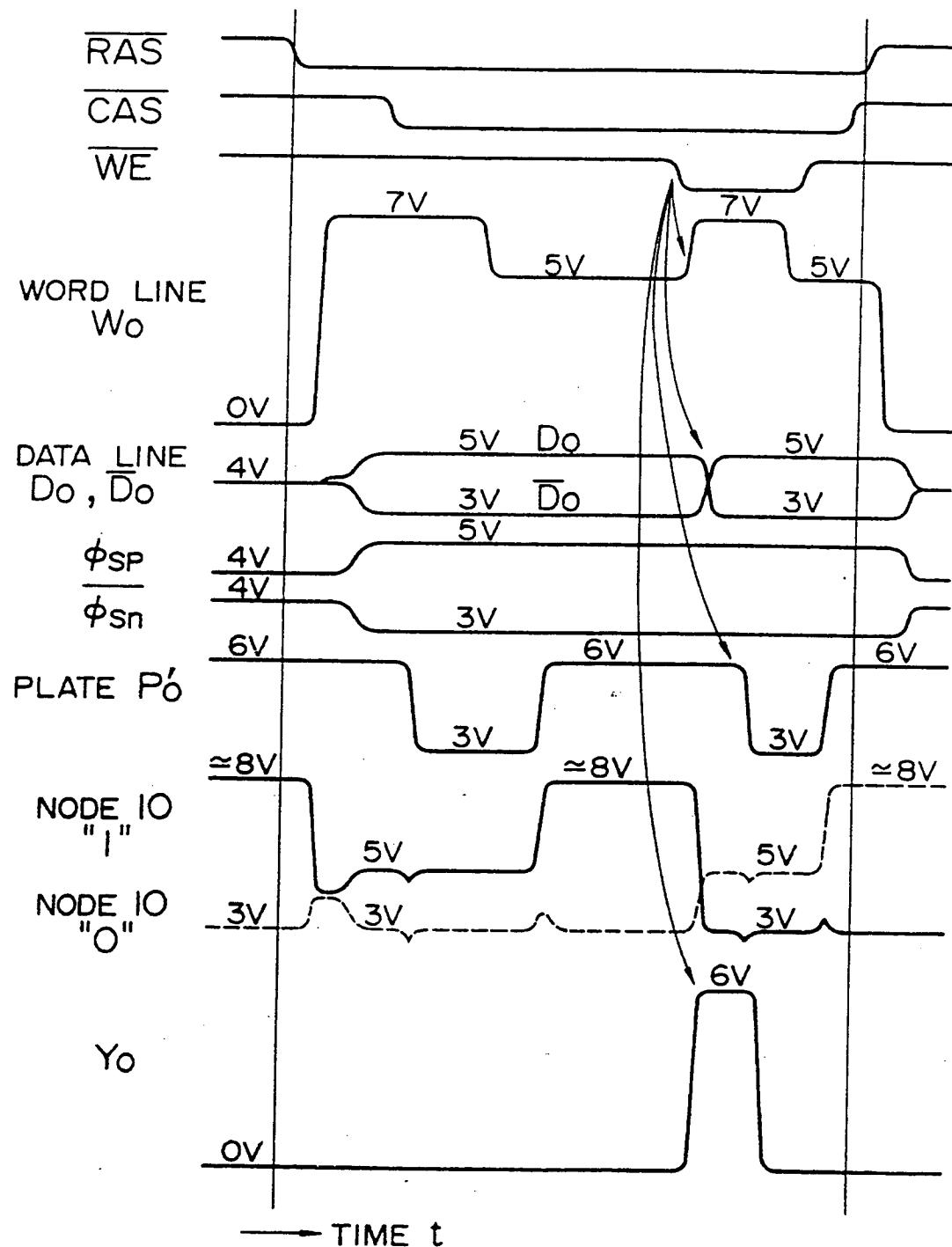


FIG. 57

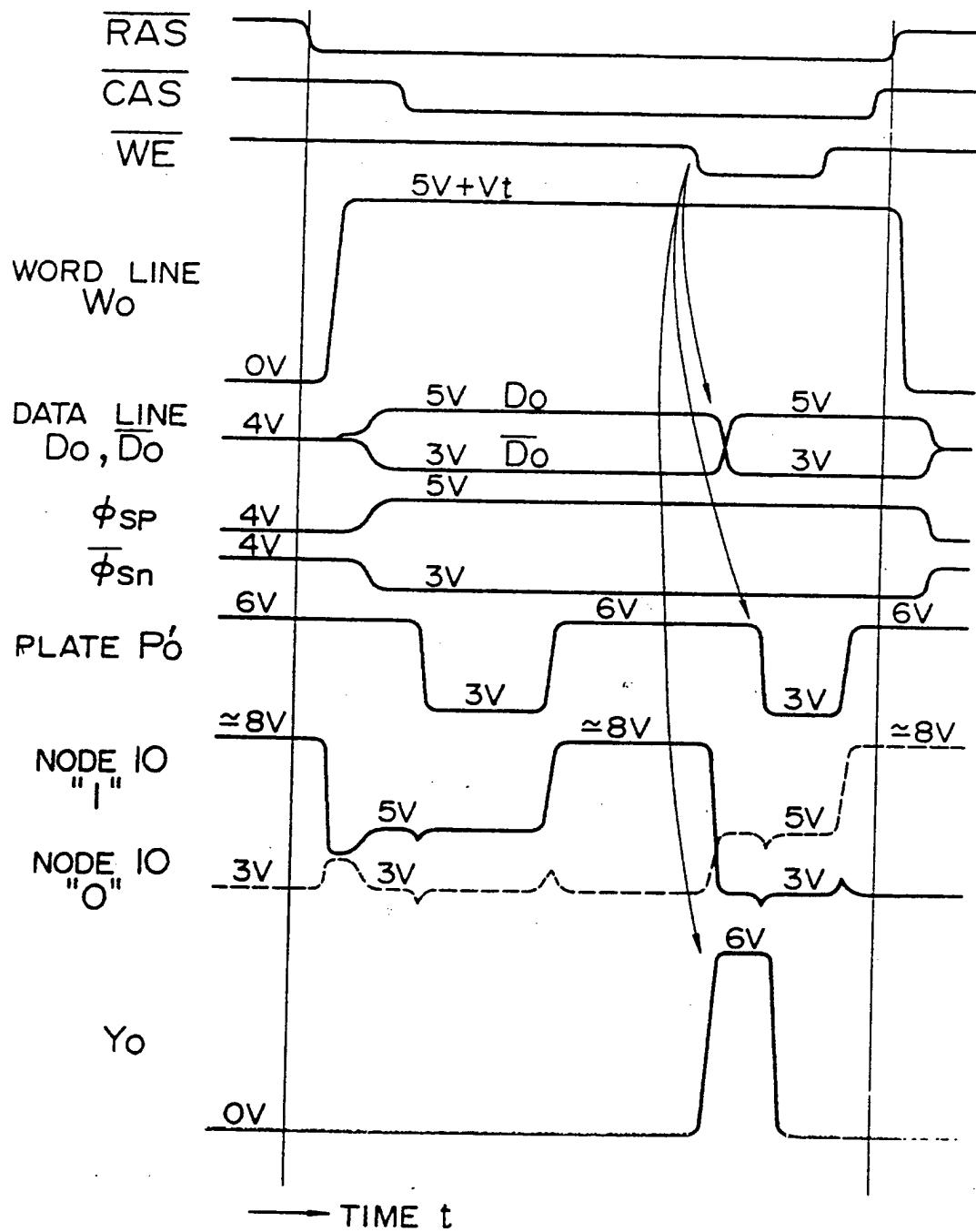


FIG. 58A

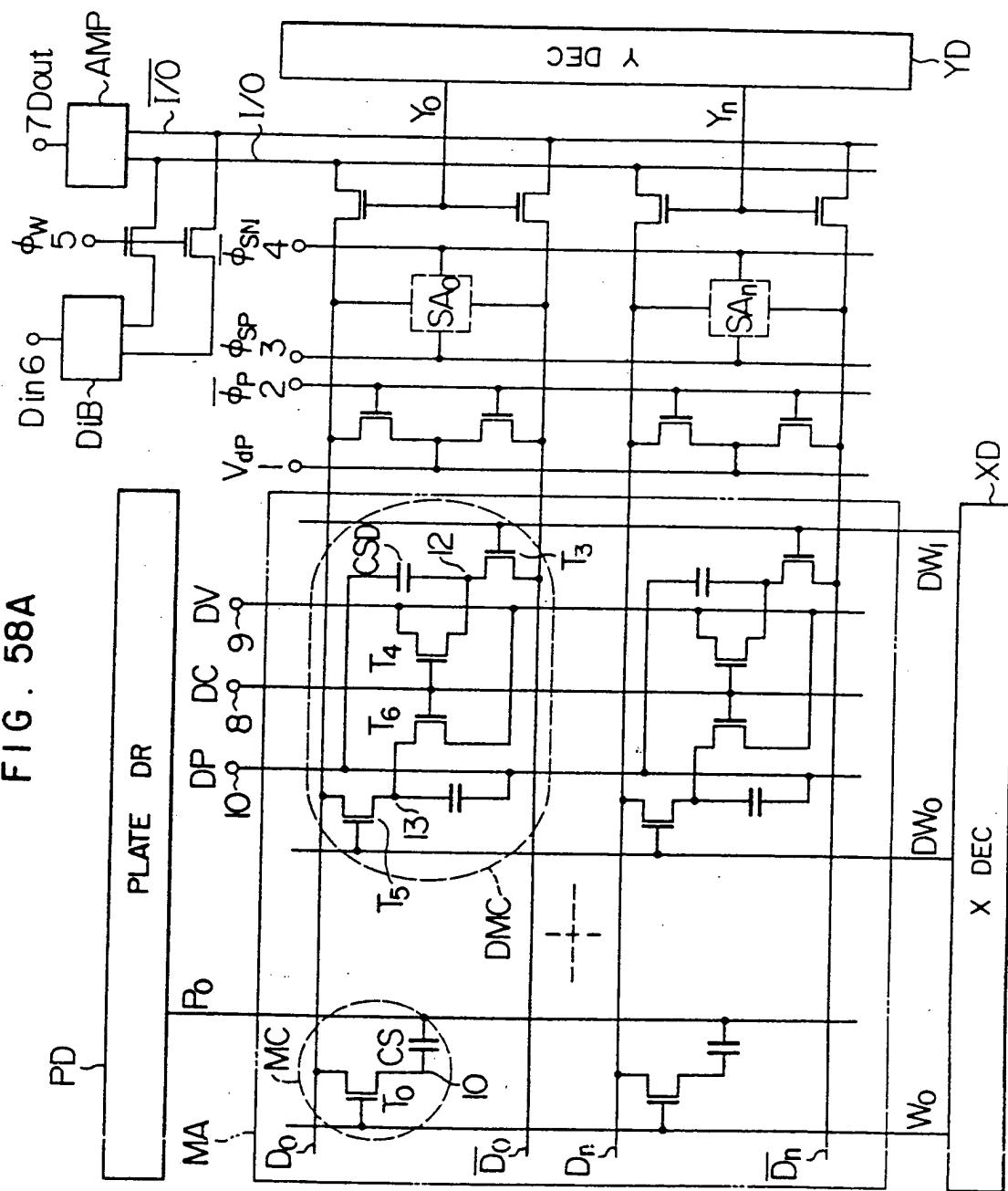


FIG. 58B

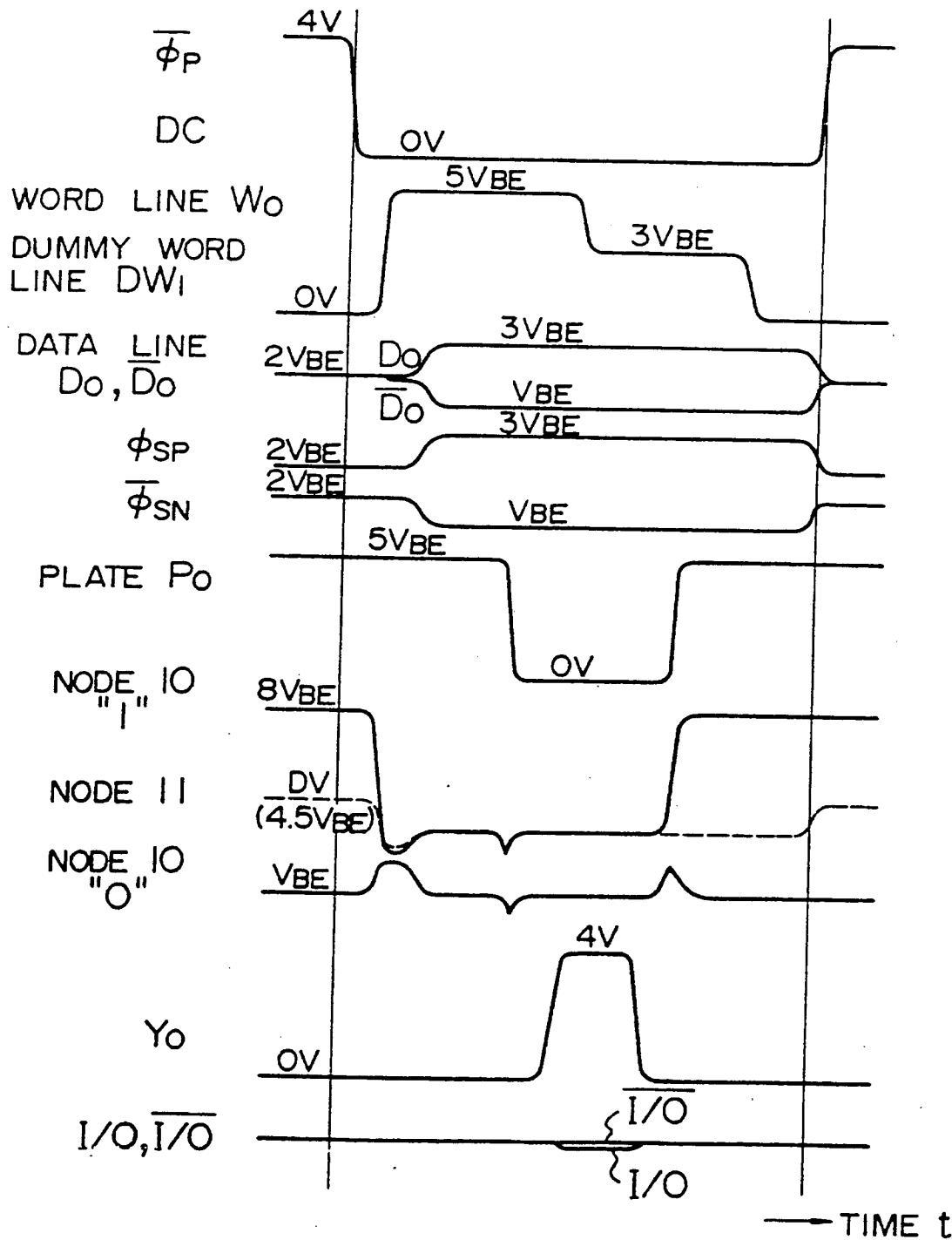


FIG. 58C

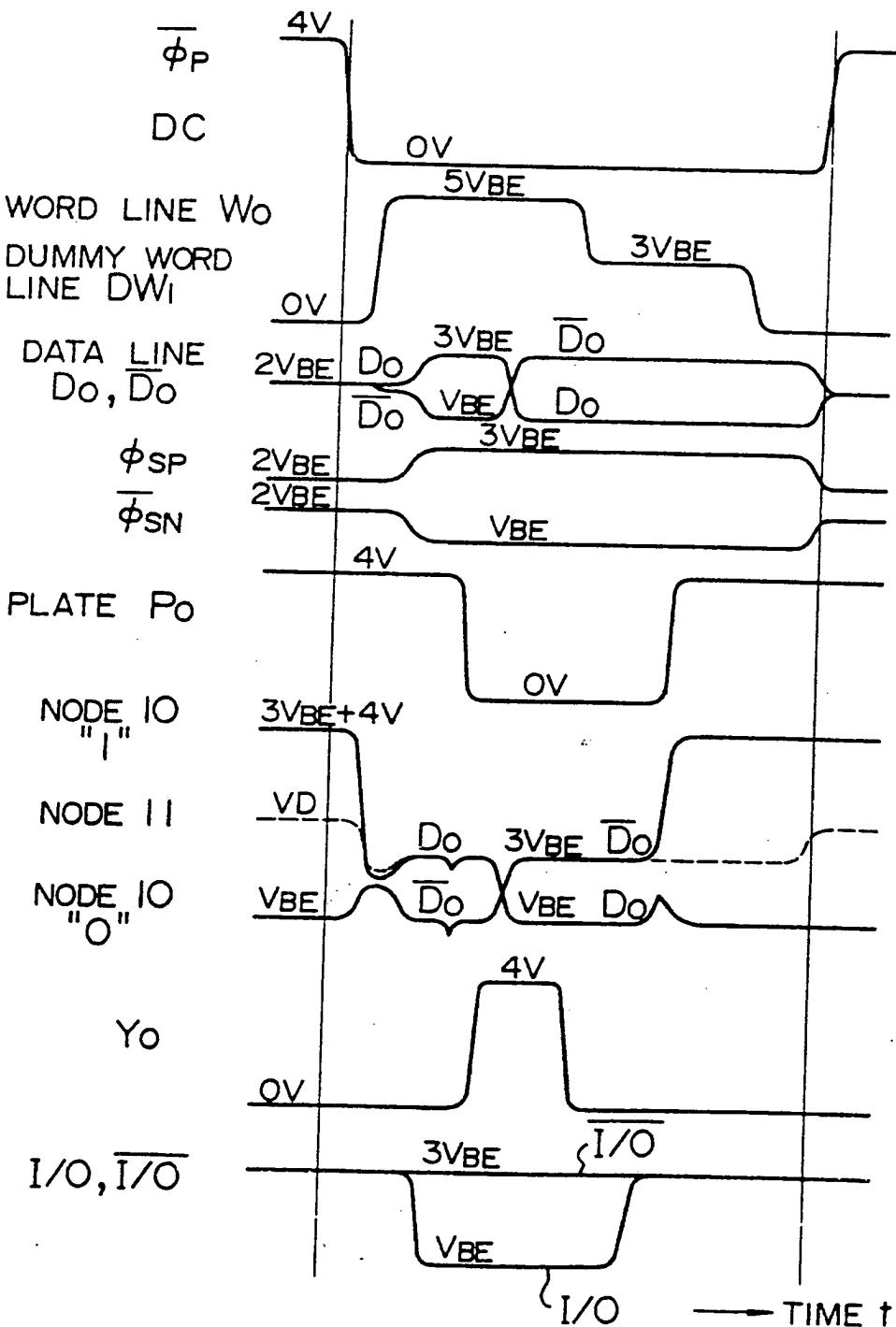


FIG. 60A

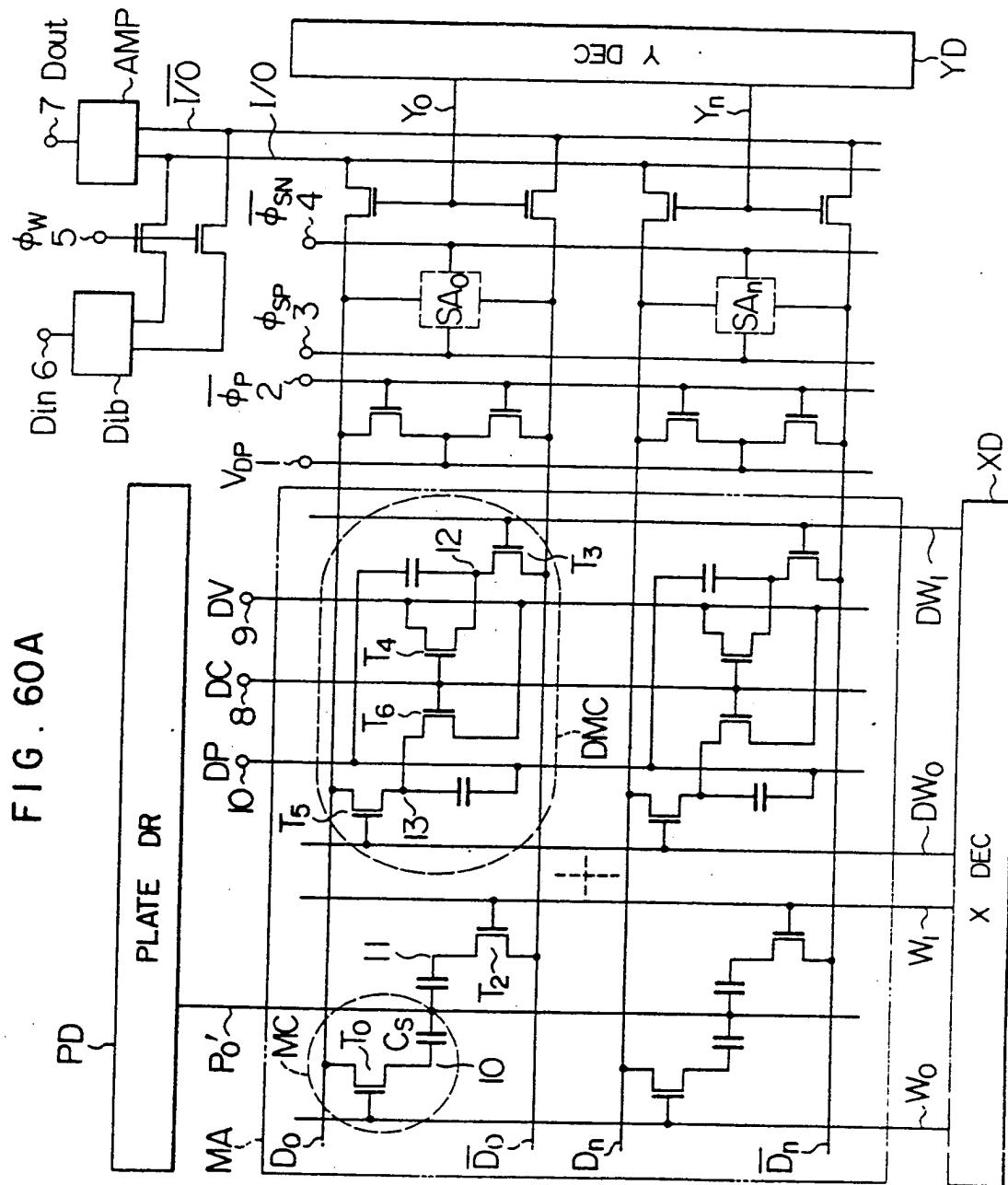


FIG. 60B

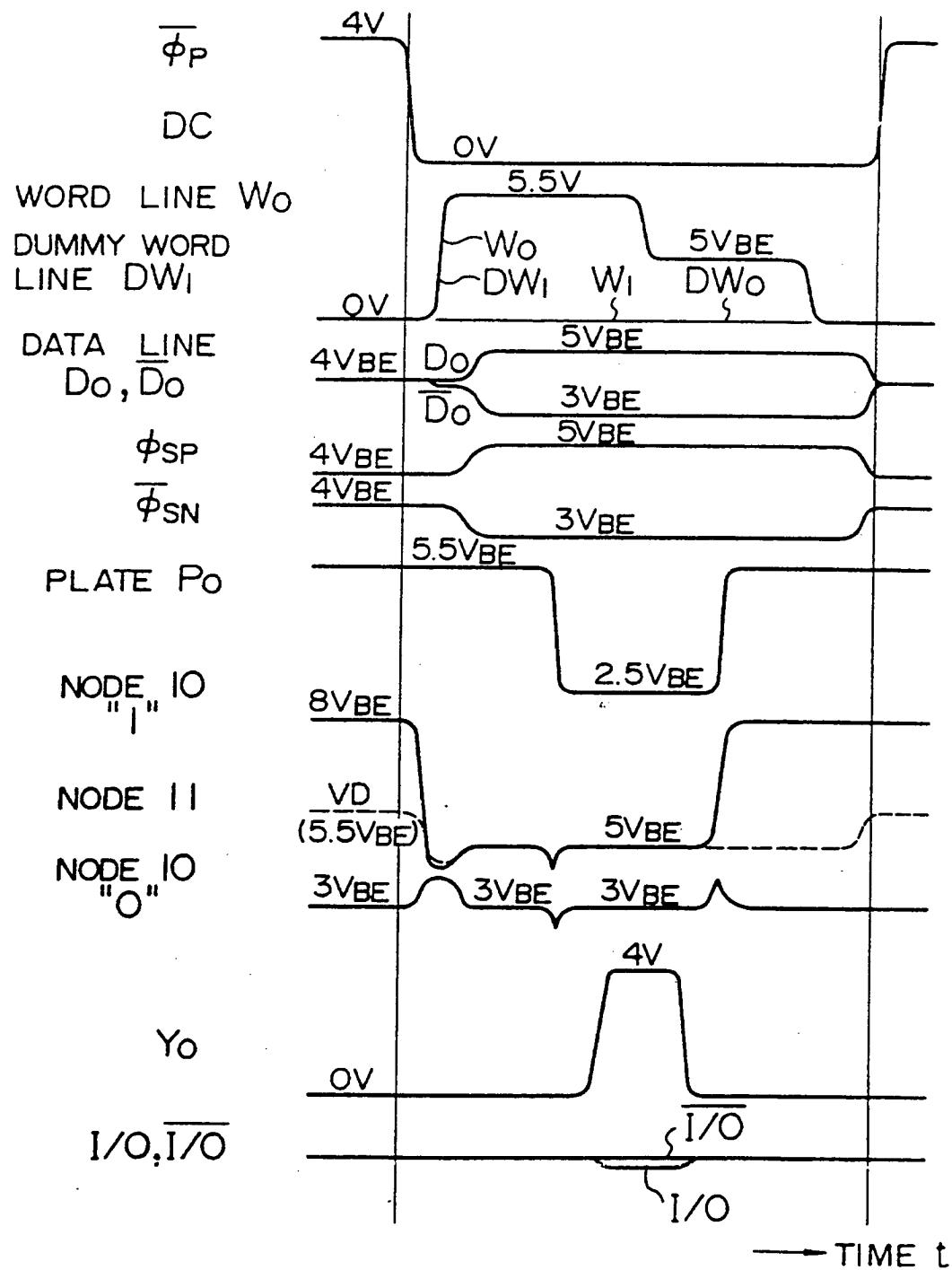


FIG. 60C

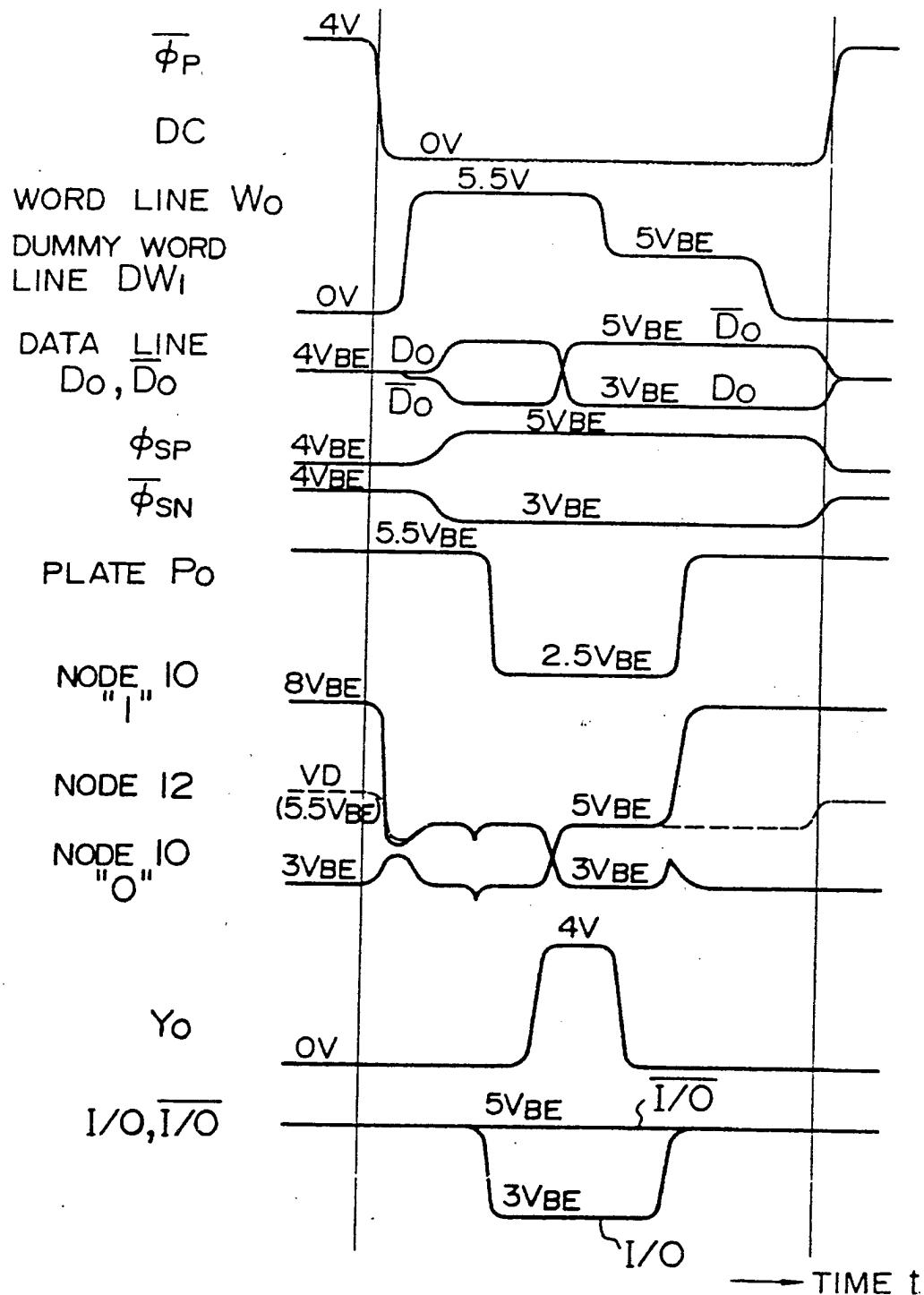


FIG. 61

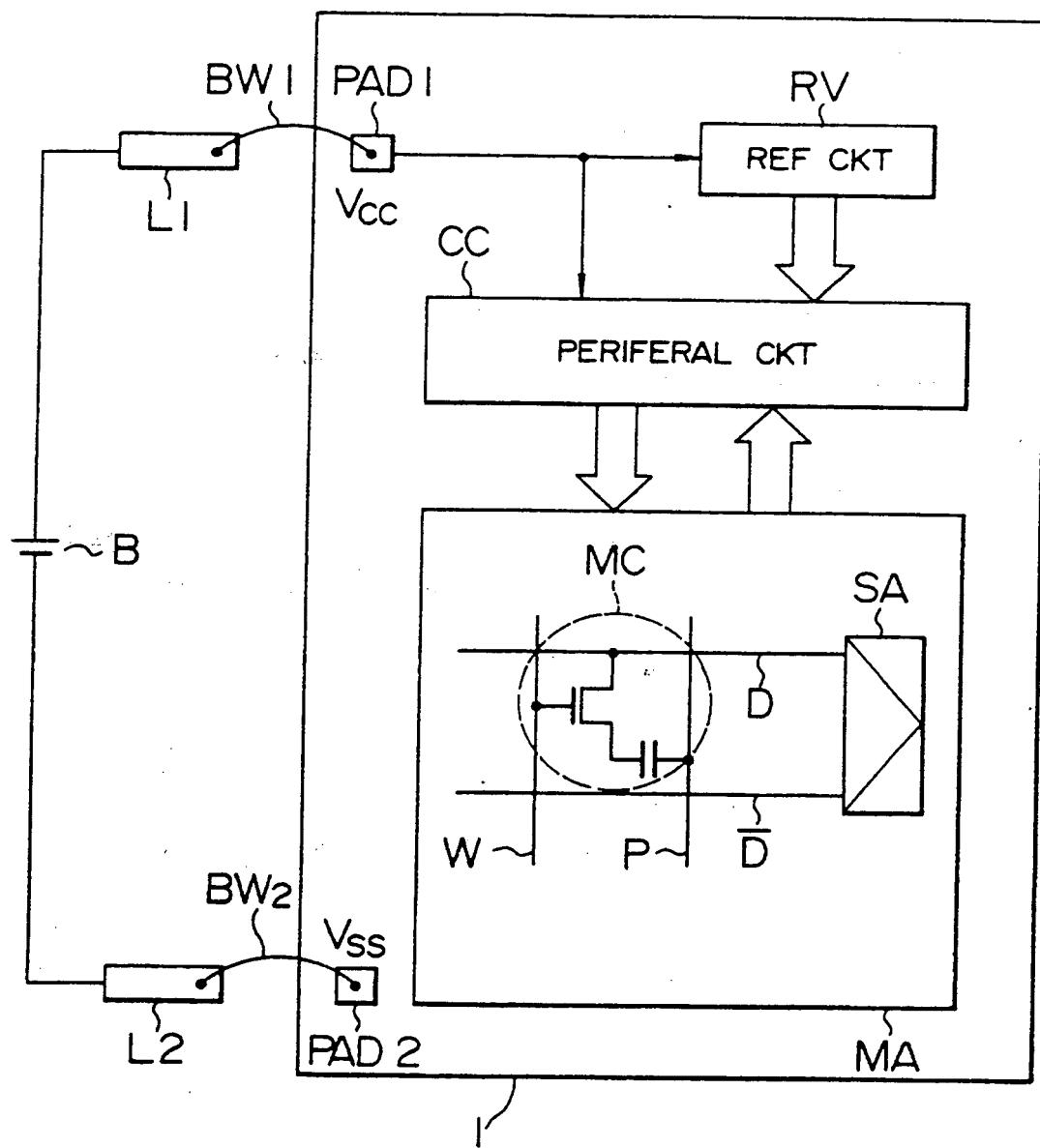


FIG. 62A

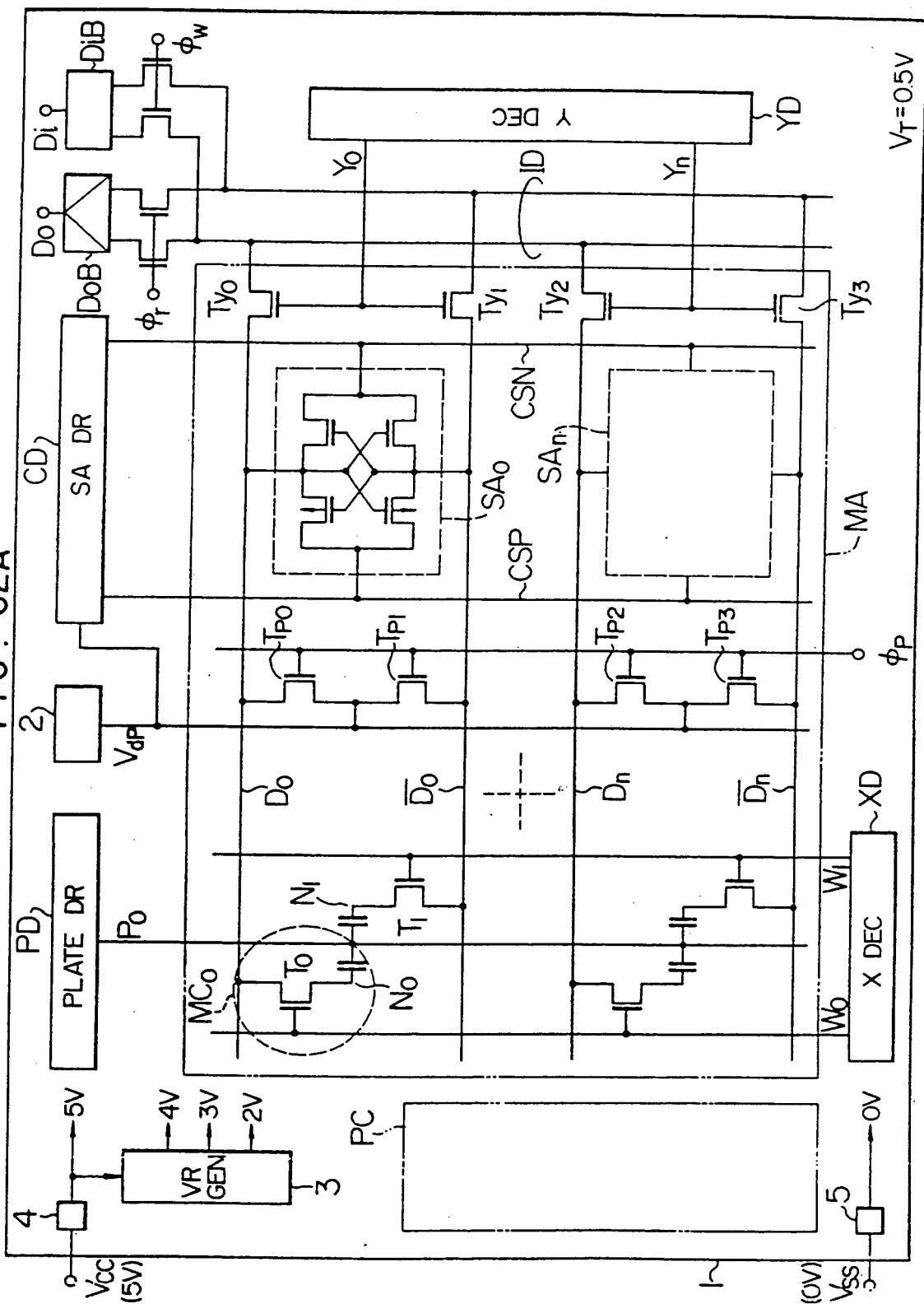


FIG. 62B

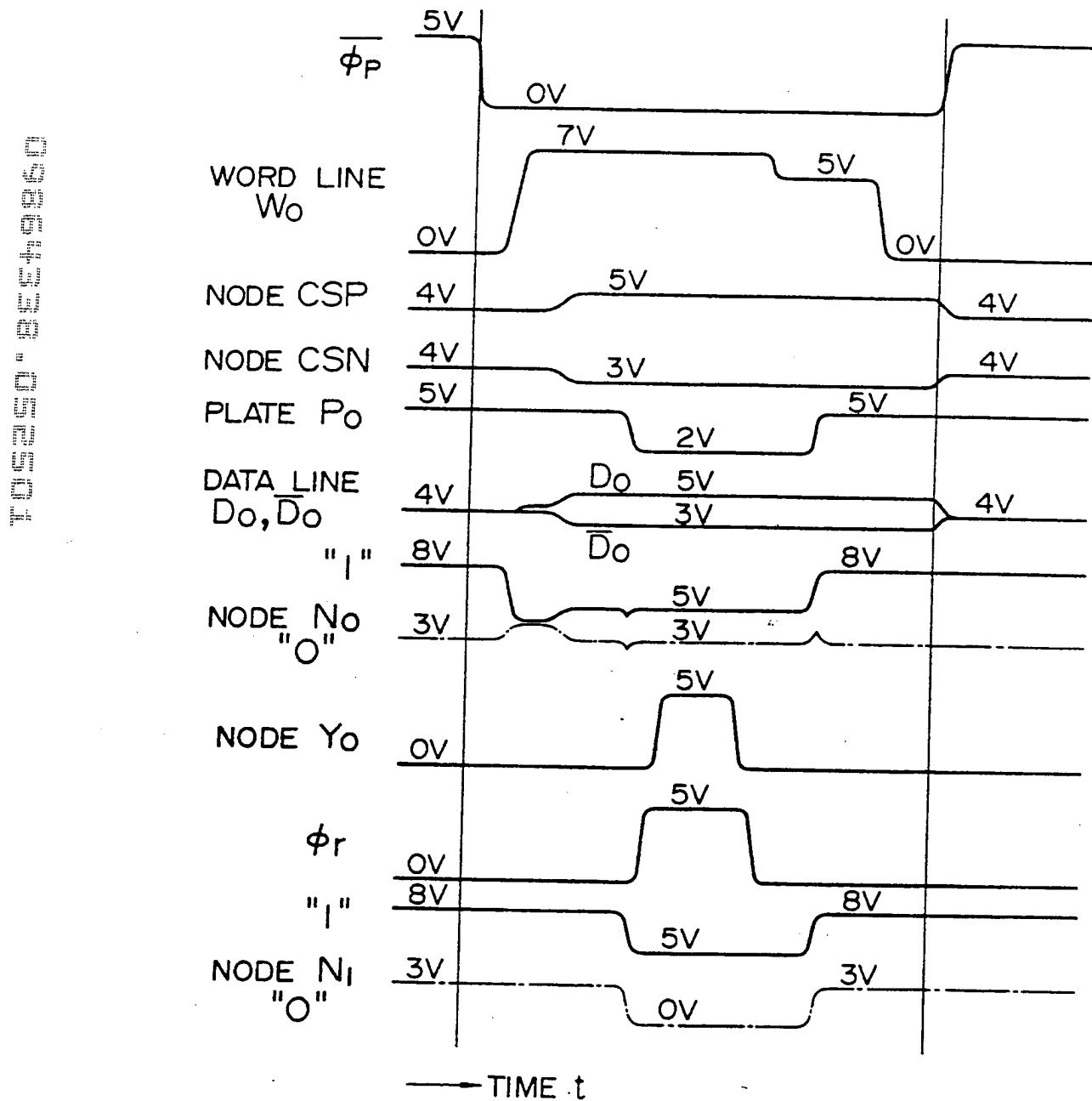


FIG. 63A

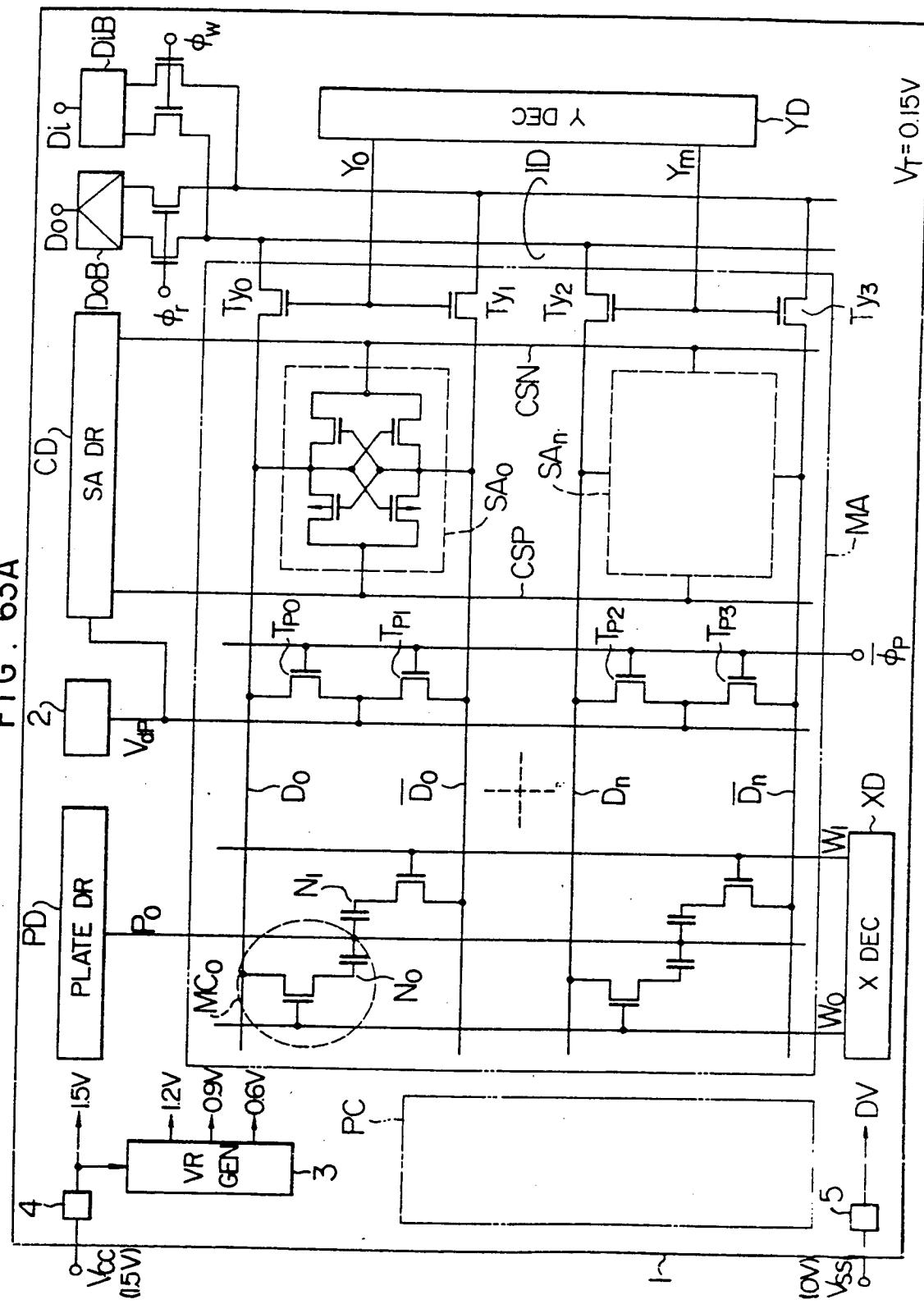
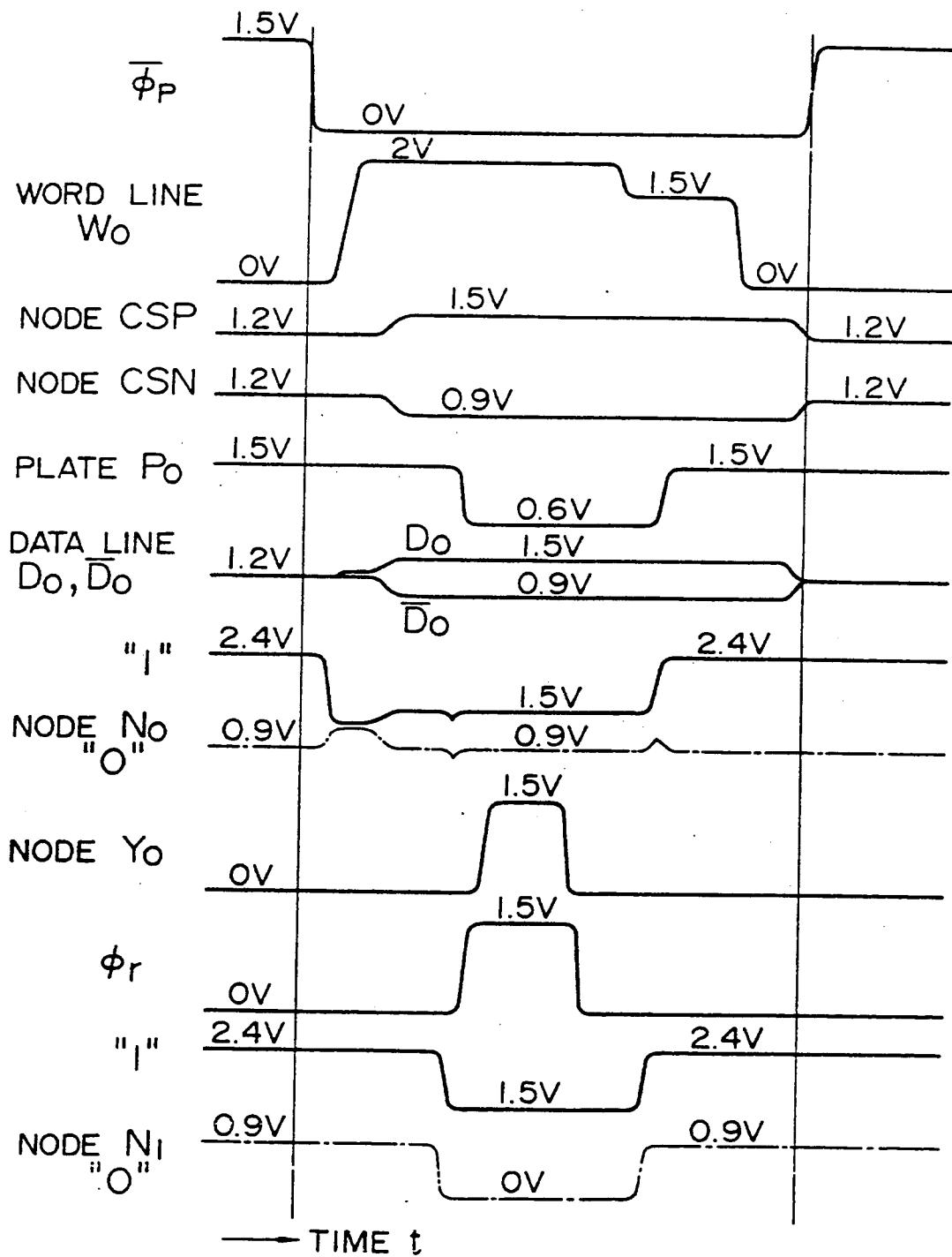


FIG. 63B



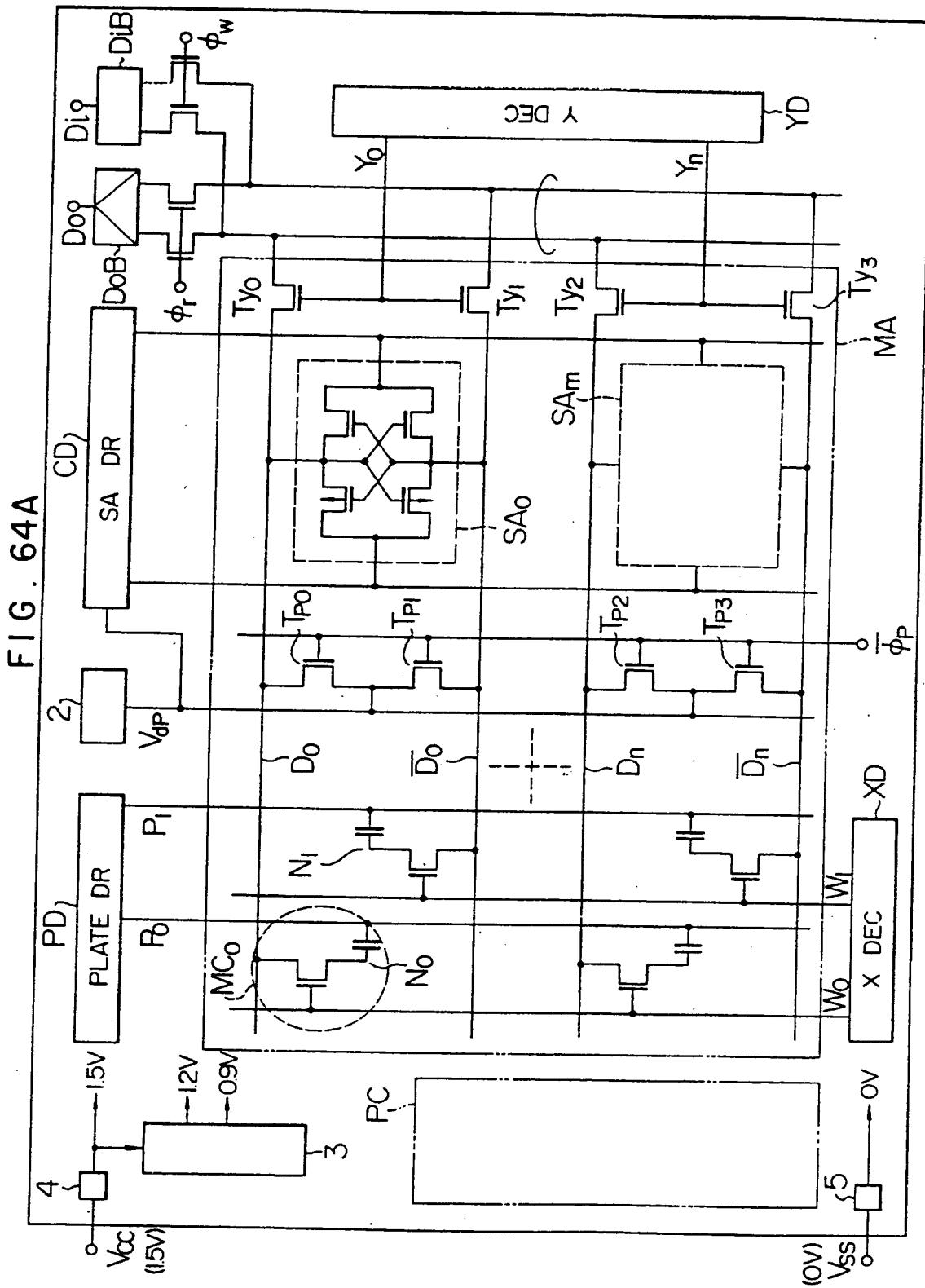


FIG. 64B

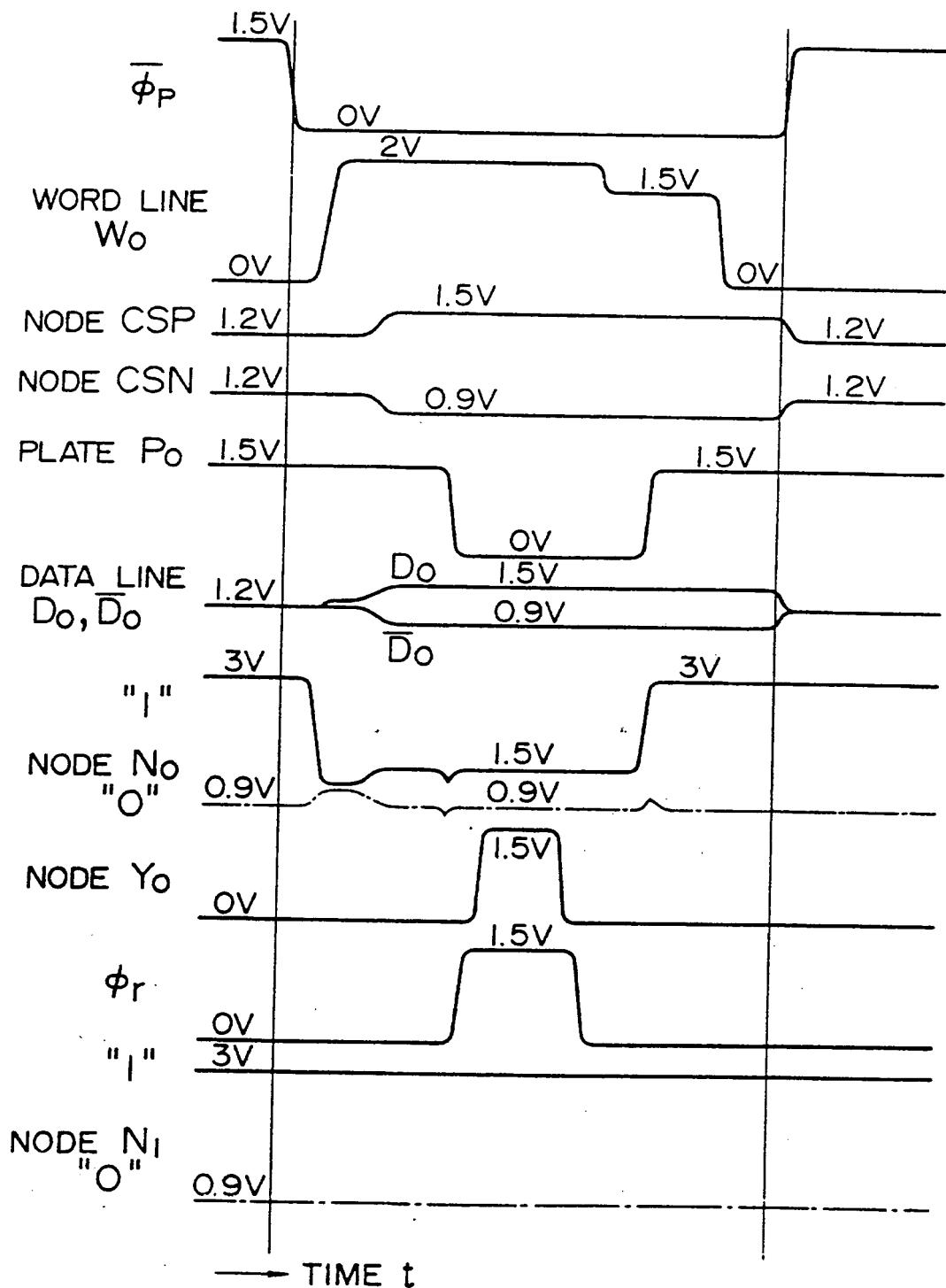


FIG. 65A

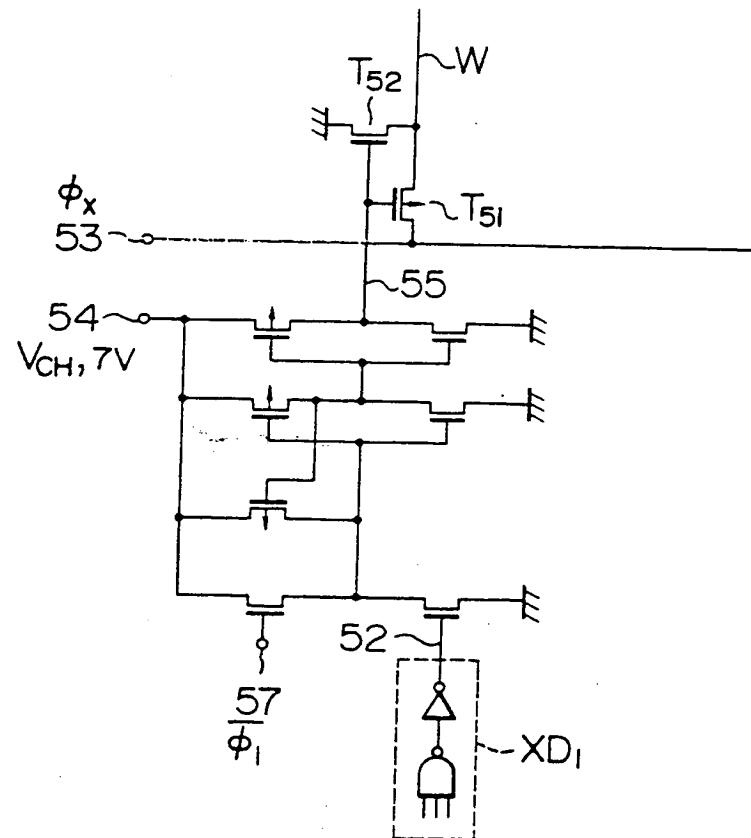


FIG. 65B

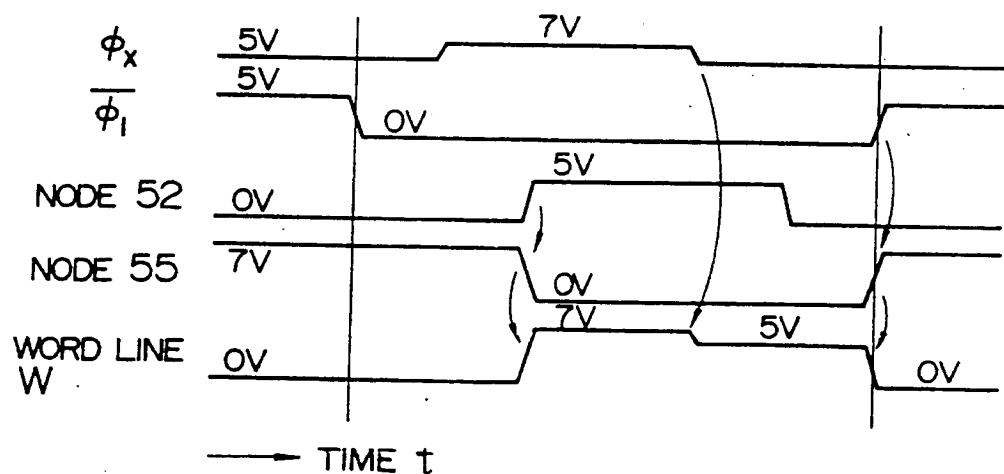


FIG. 66A

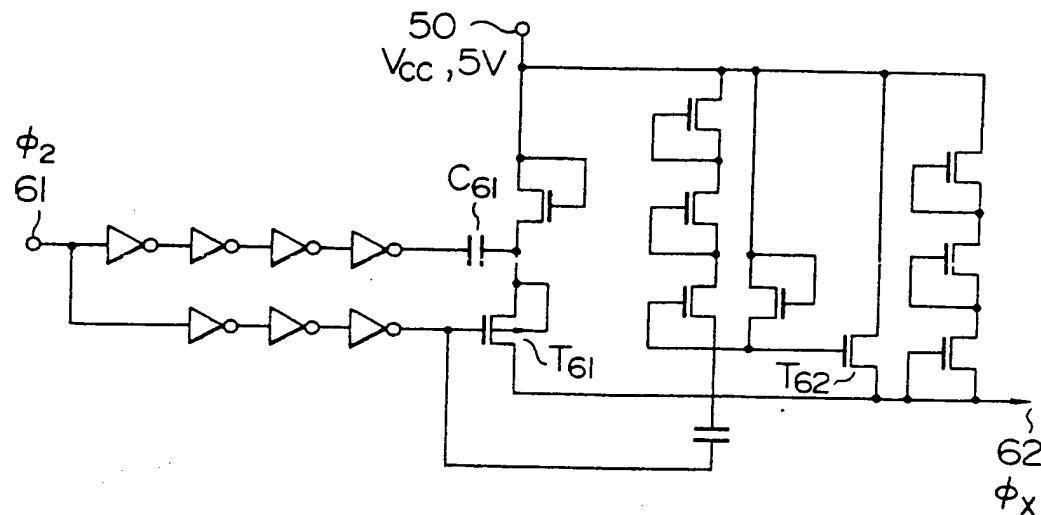


FIG. 66B

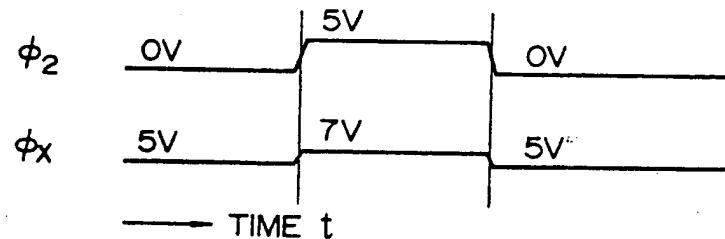


FIG. 67

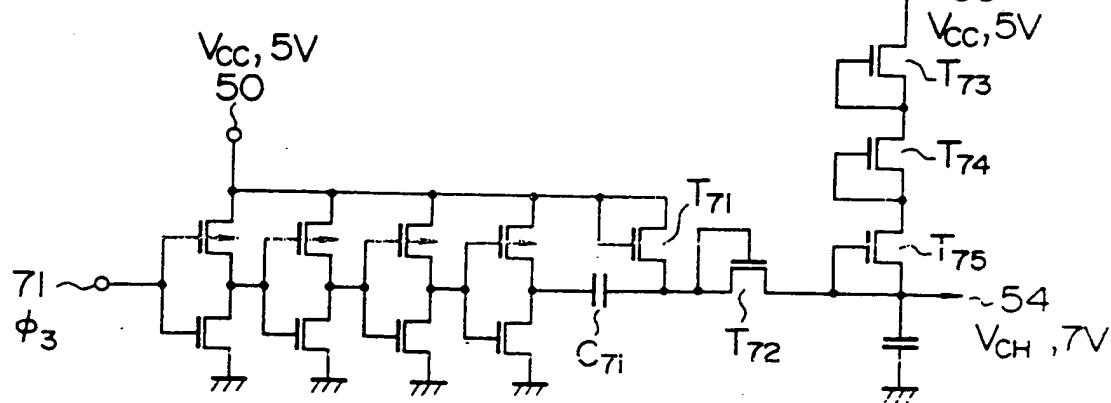


FIG. 68A

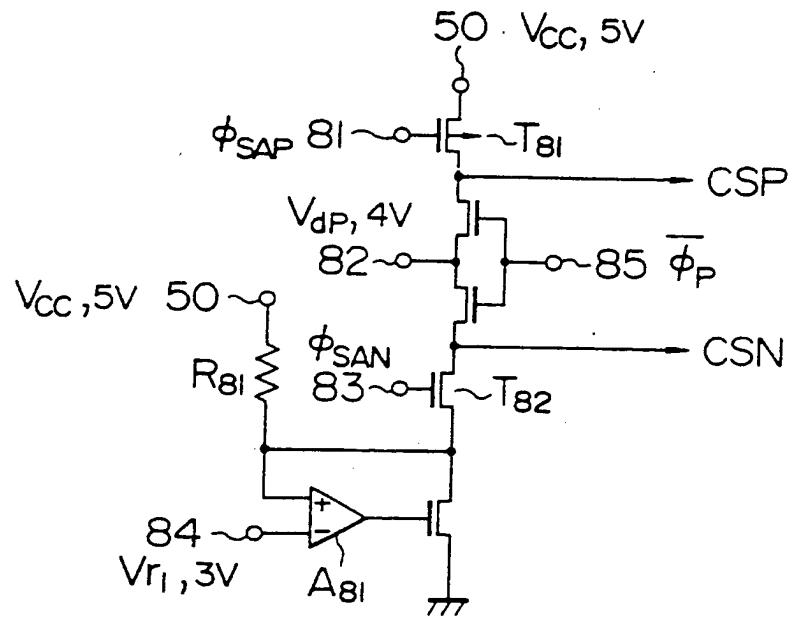


FIG. 68B

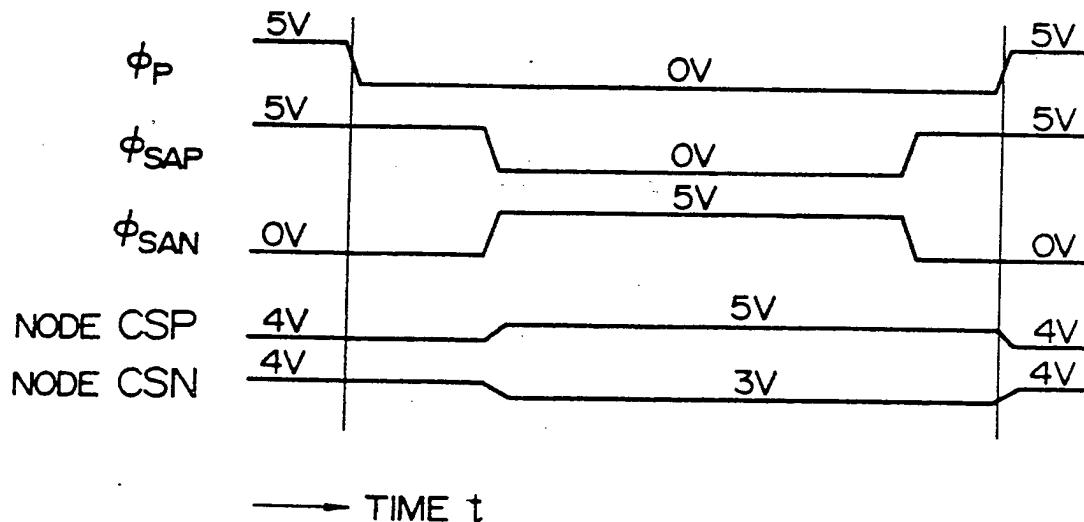


FIG. 69A

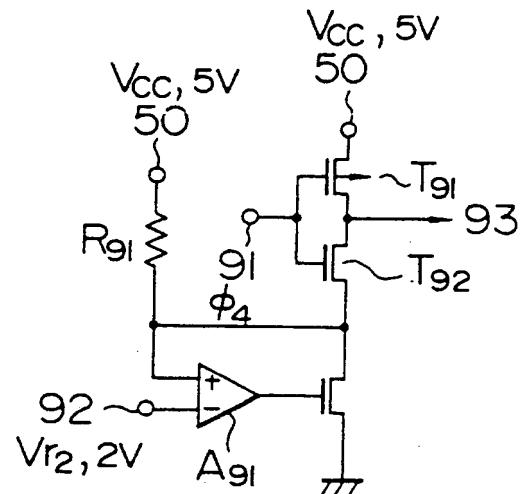


FIG. 69B

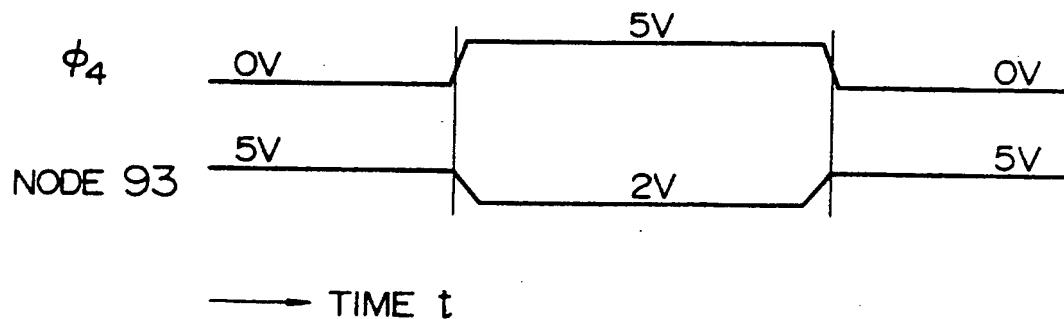


FIG. 70A

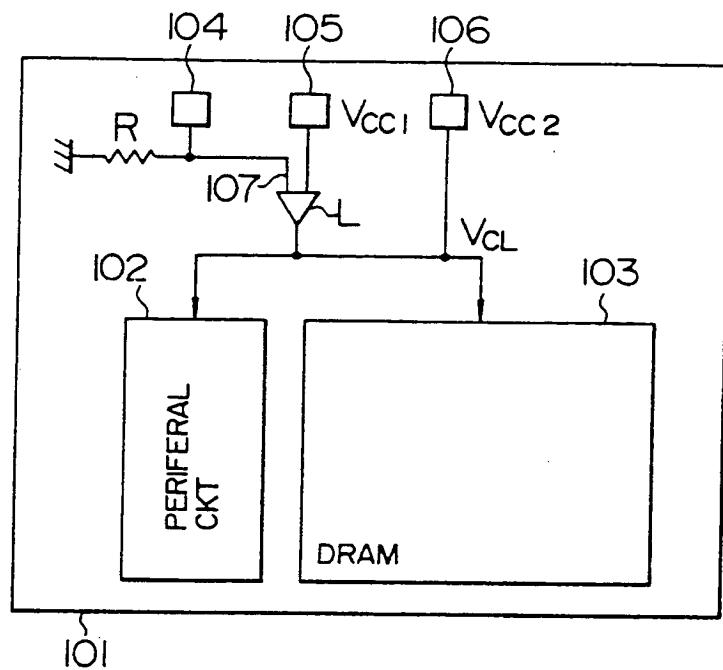


FIG. 70B

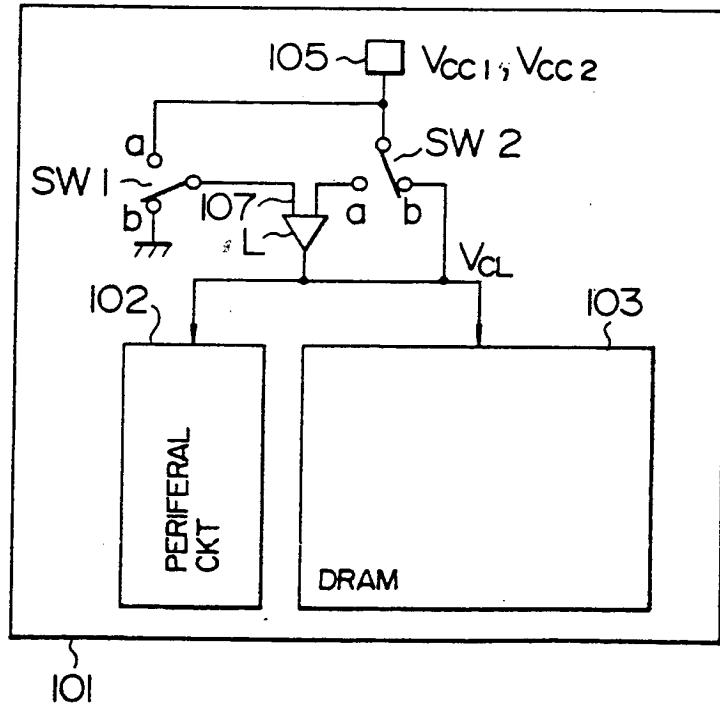


FIG. 70C

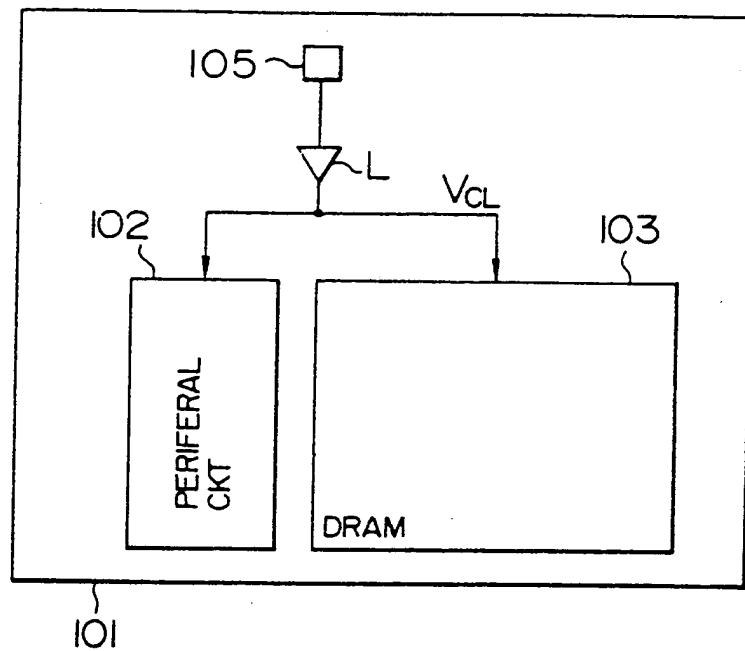


FIG. 70D

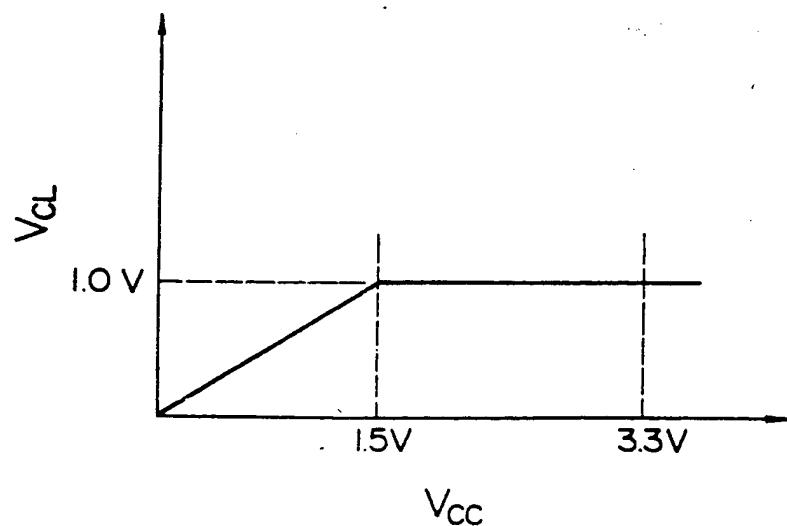


FIG. 71A

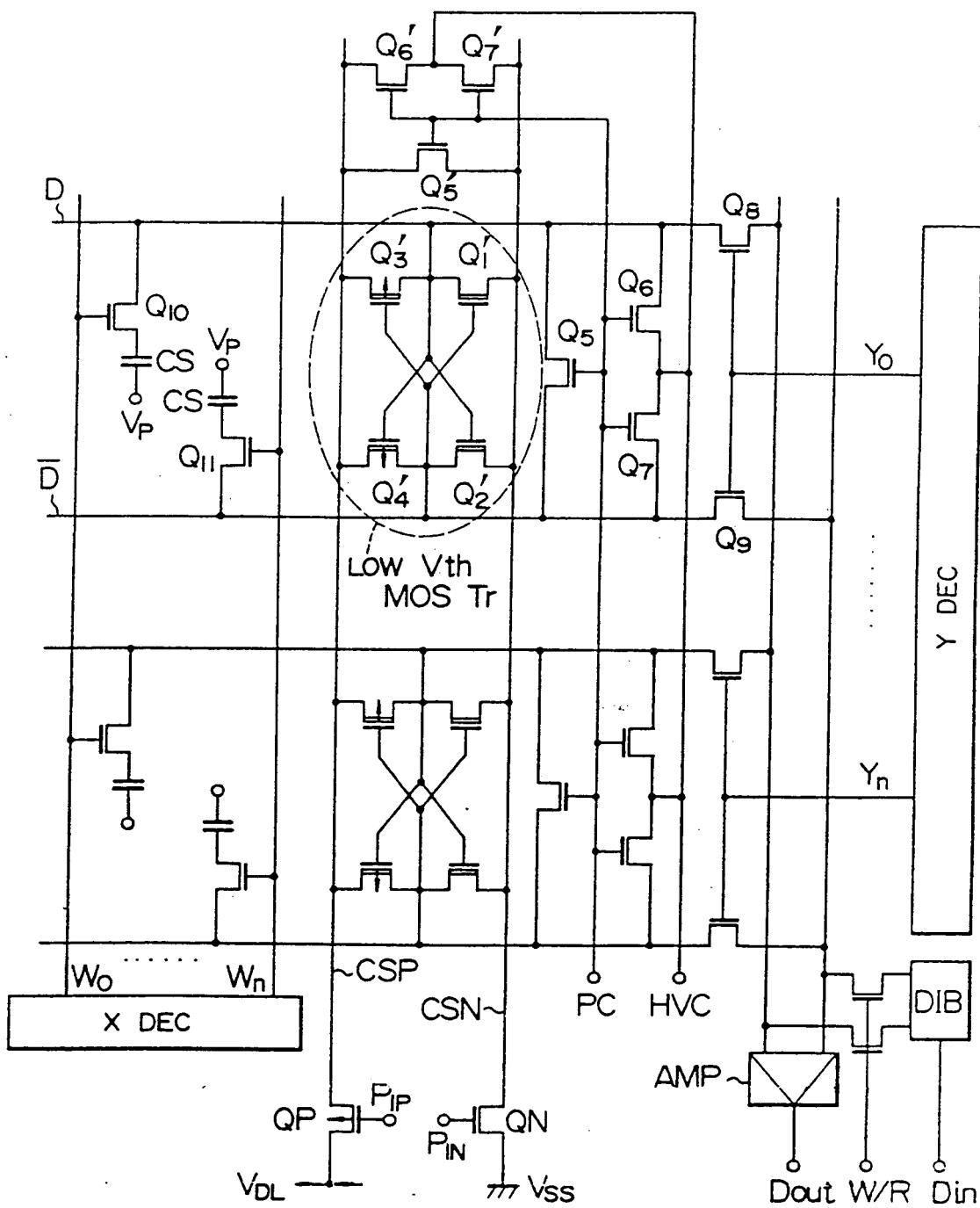


FIG. 7IB

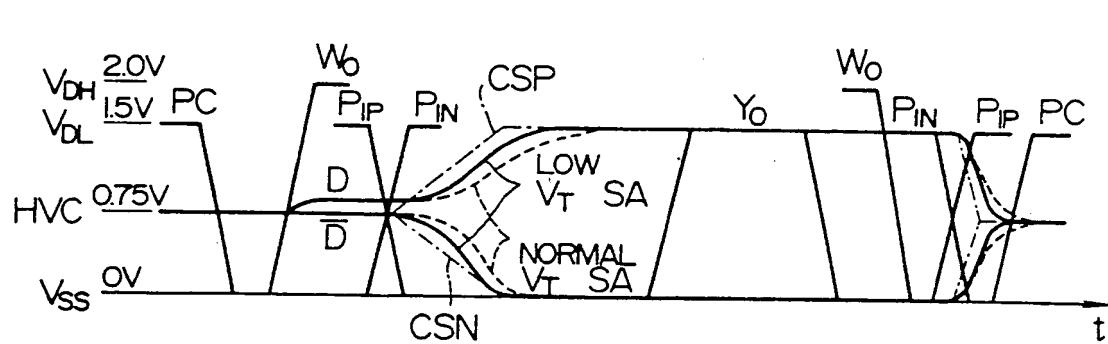


FIG. 7IC

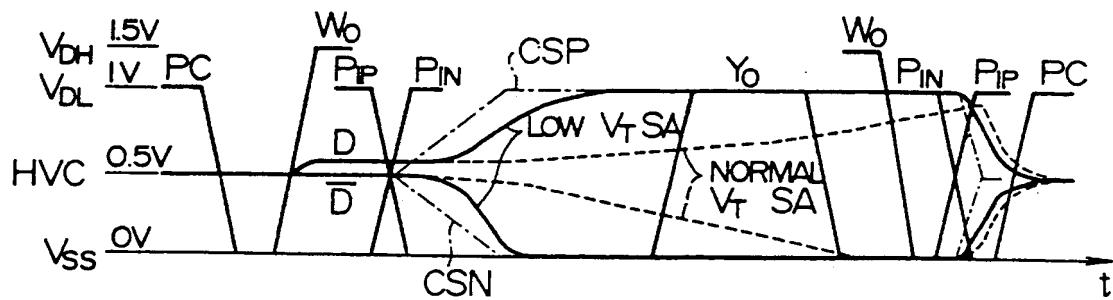


FIG. 7ID

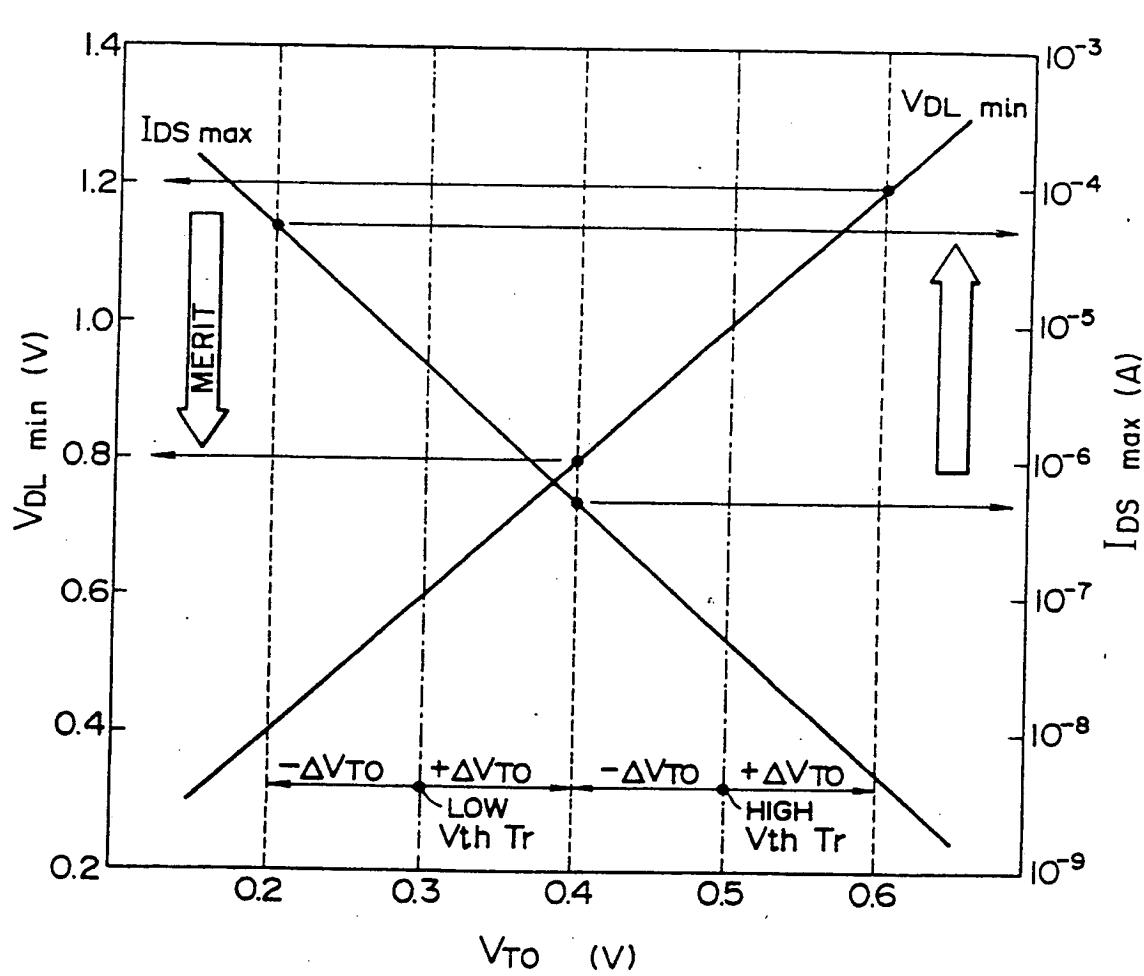


FIG. 7IE

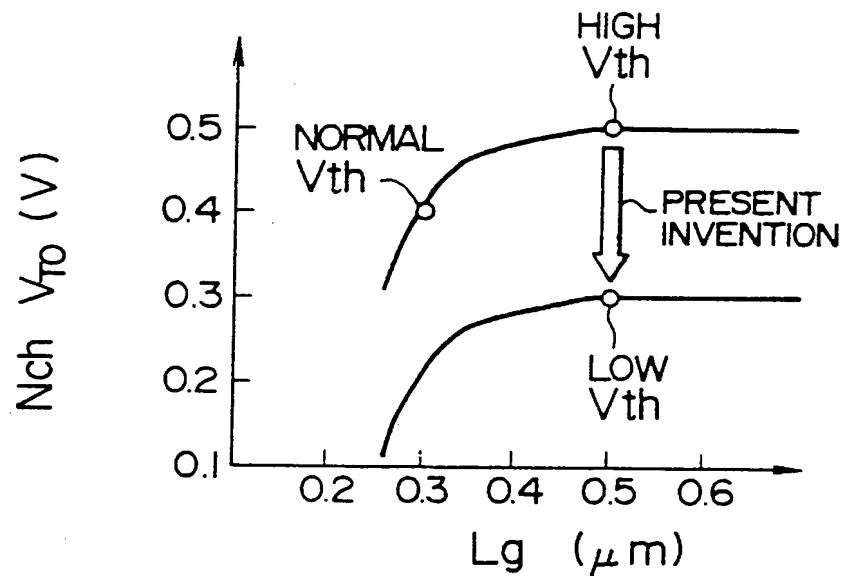


FIG. 7IF

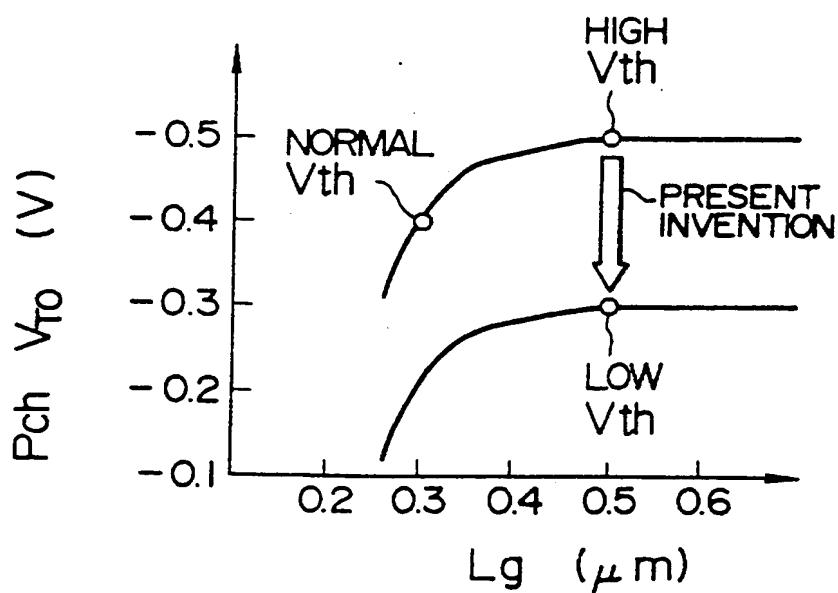


FIG. 72A

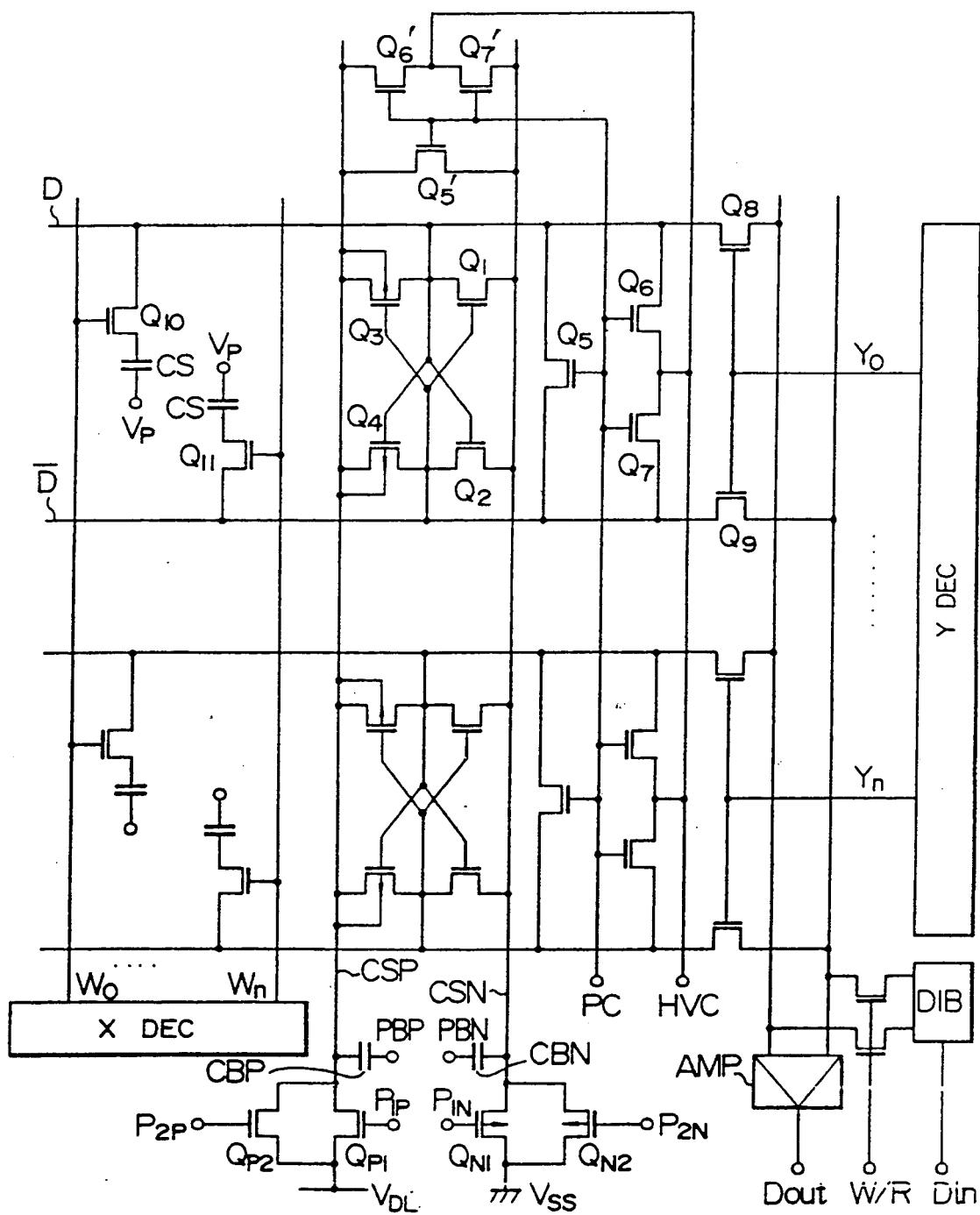


FIG. 72B

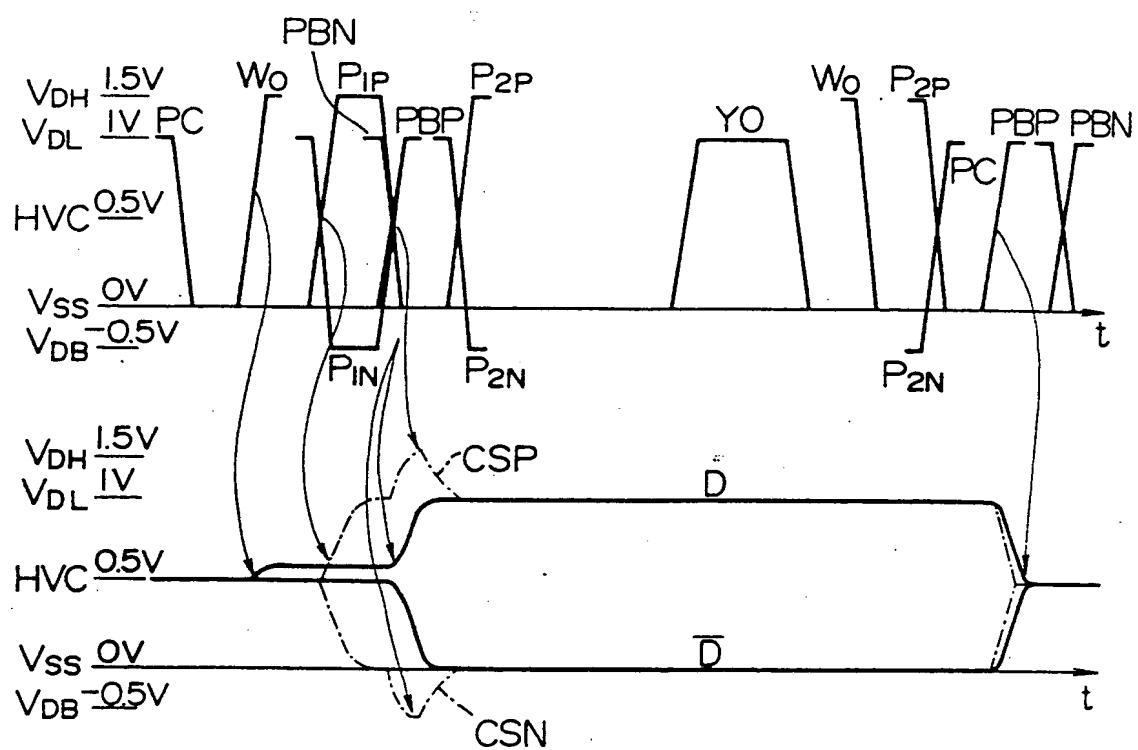


FIG. 73A

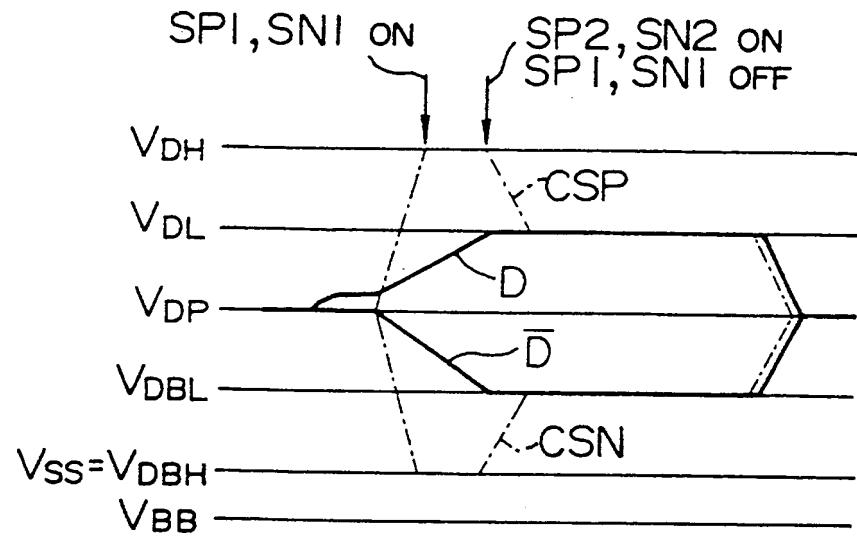


FIG. 73B

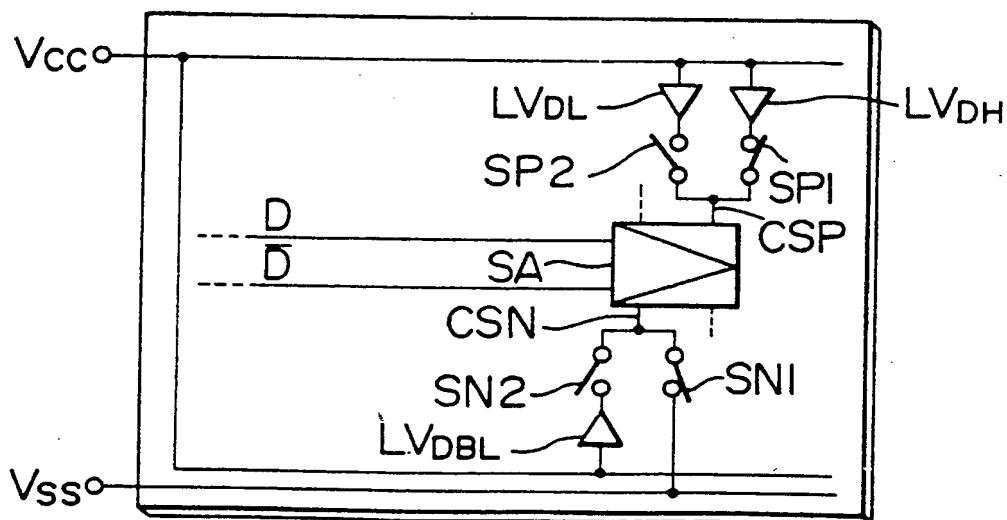


FIG. 73C

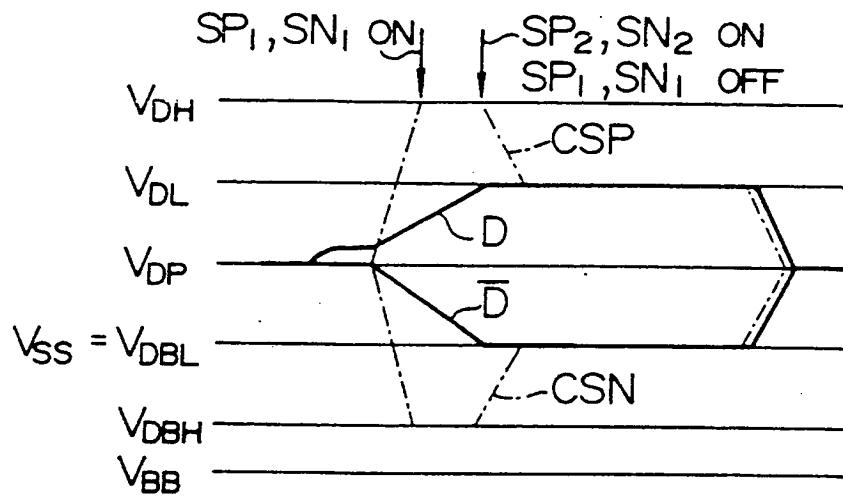


FIG. 73D

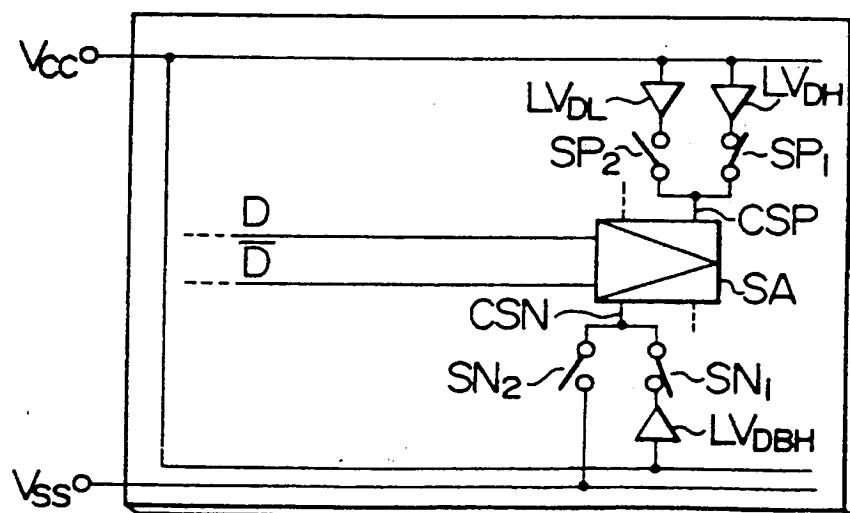


FIG. 73E

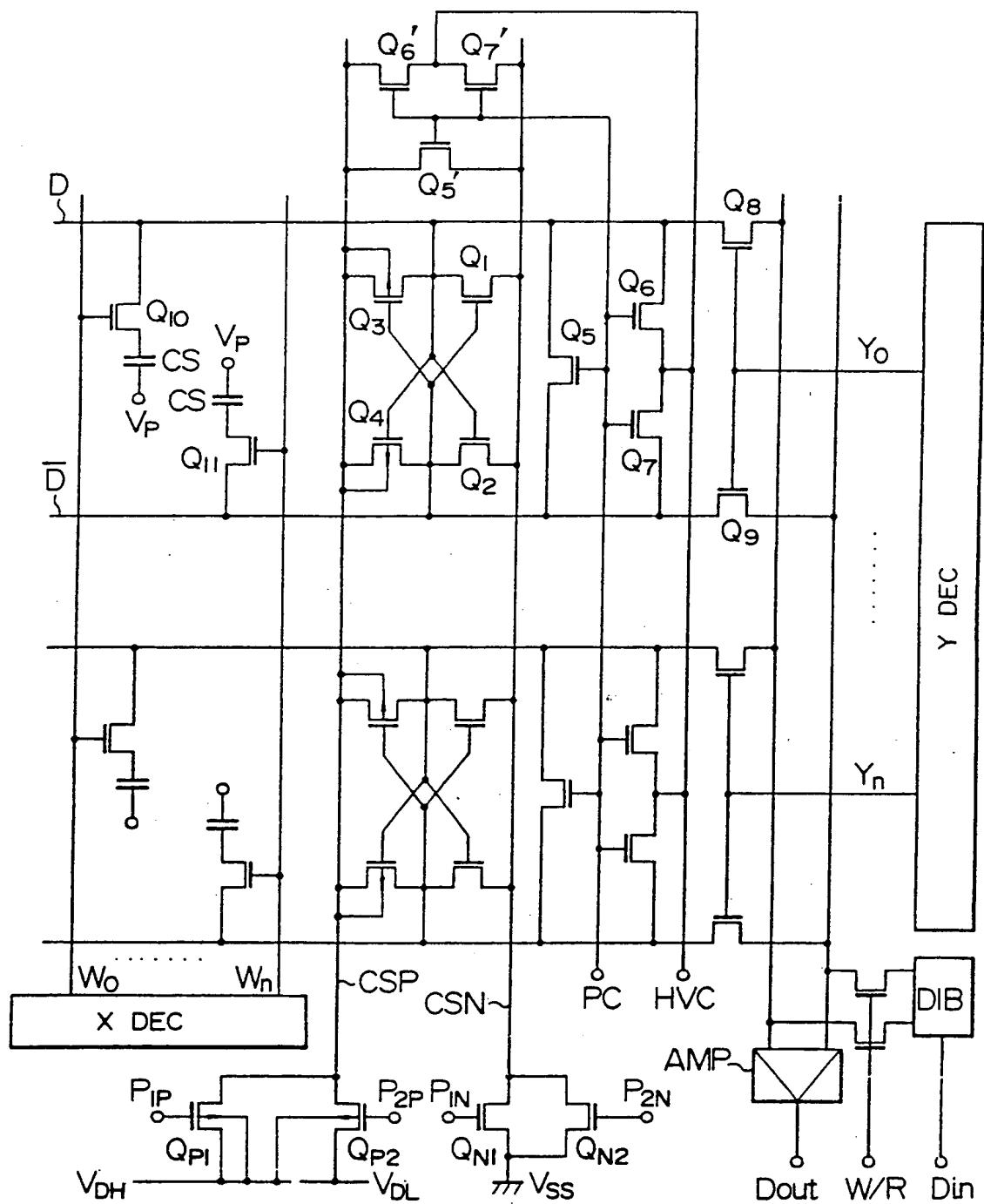


FIG. 73F

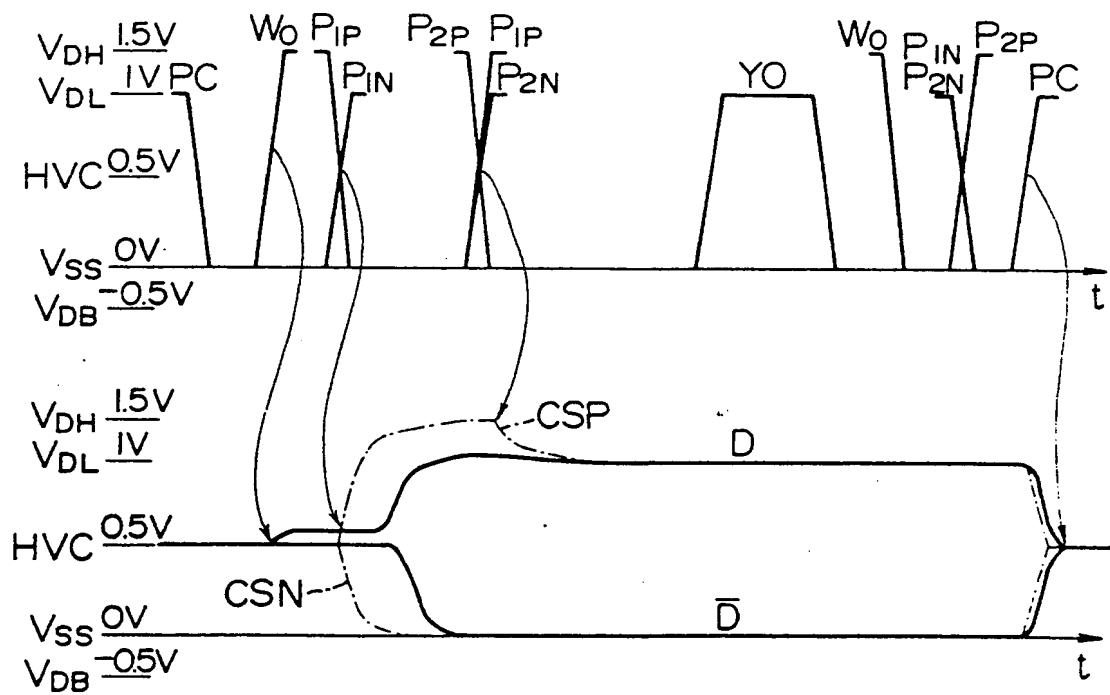


FIG. 74A

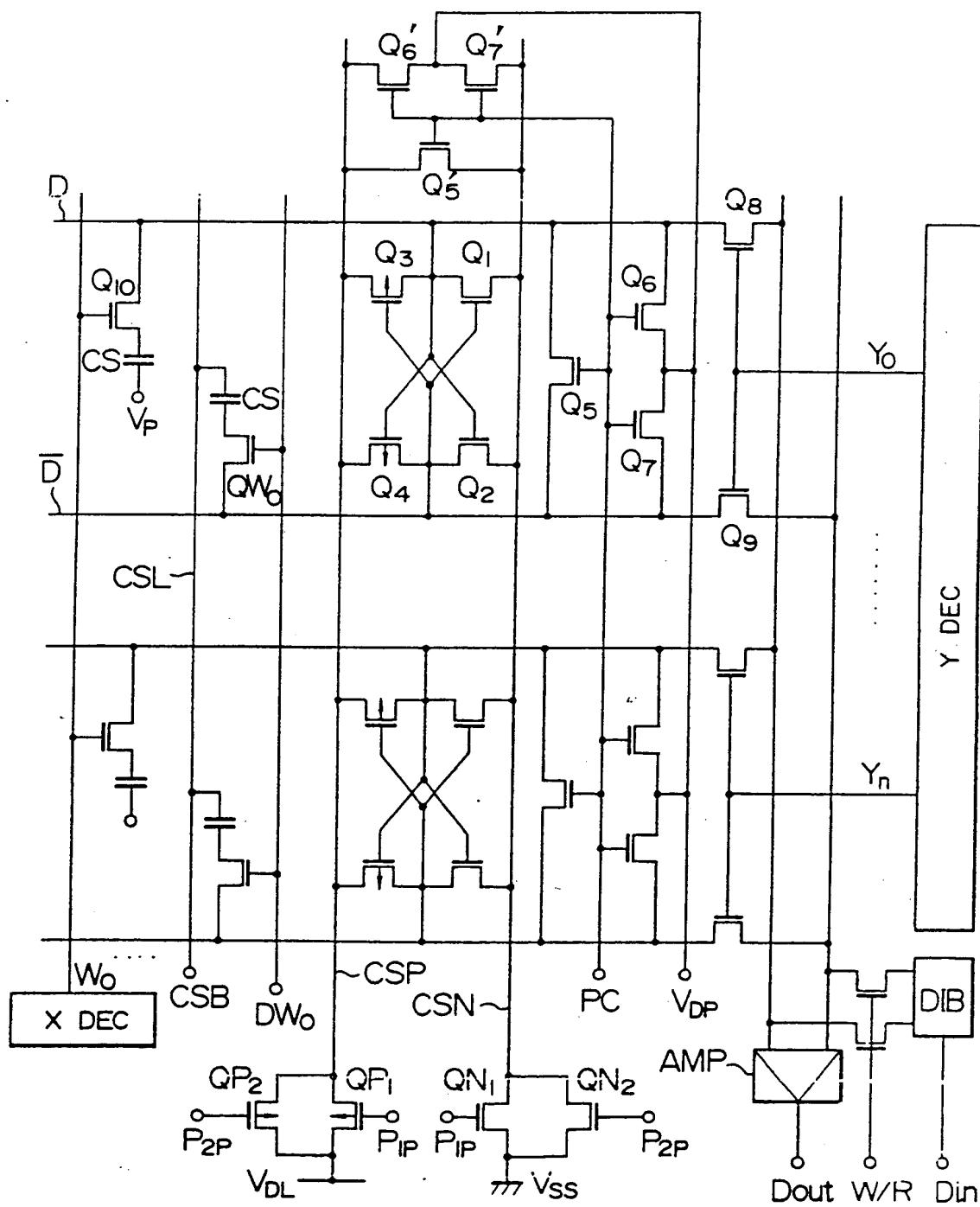


FIG. 74B

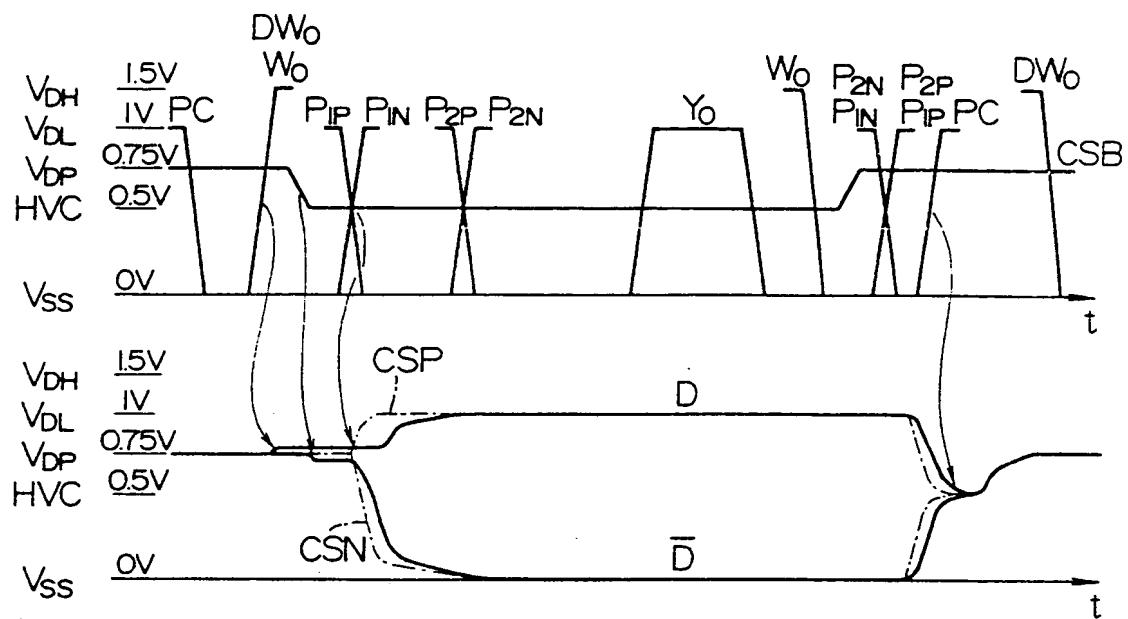


FIG. 74C

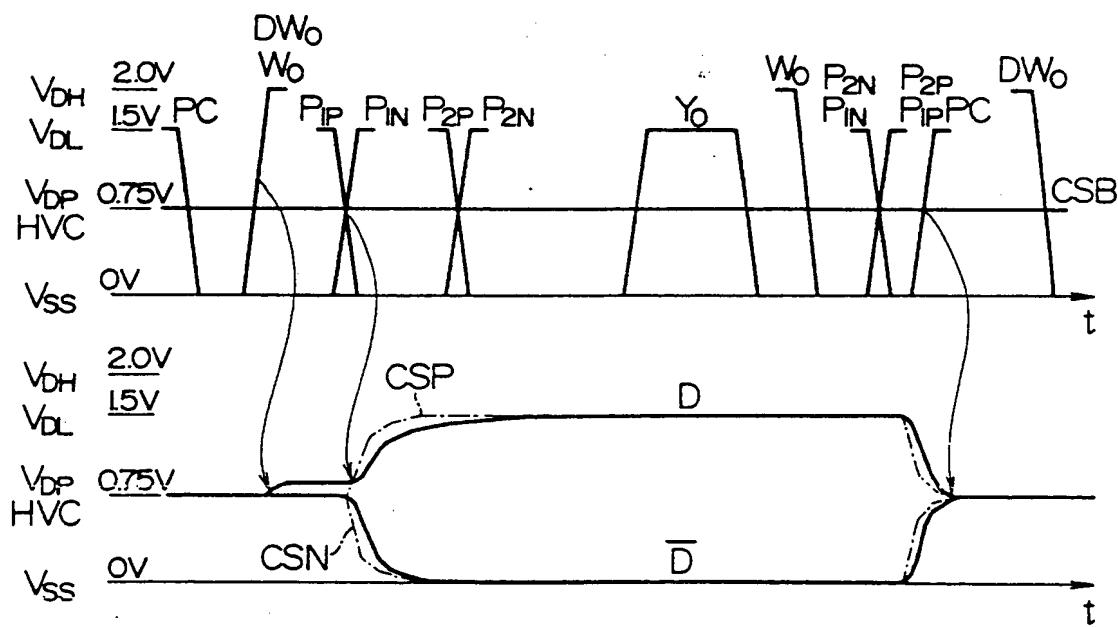


FIG. 74D

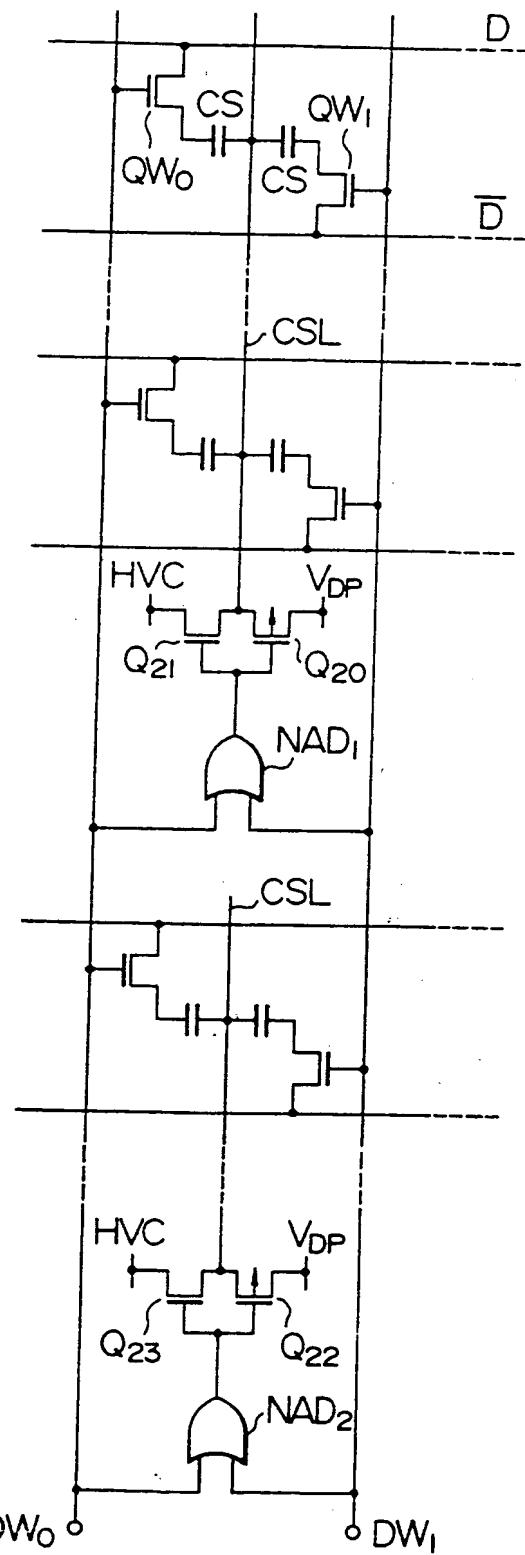


FIG. 74E

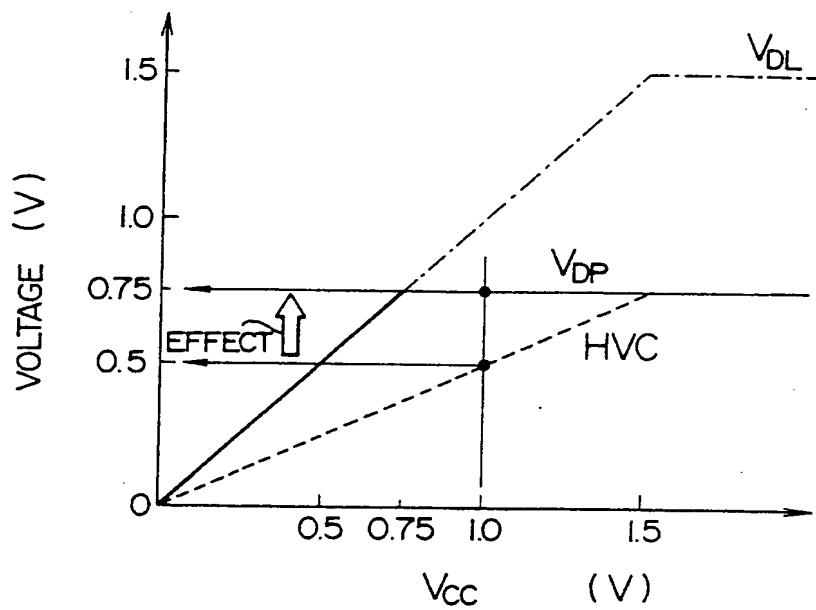


FIG. 74F

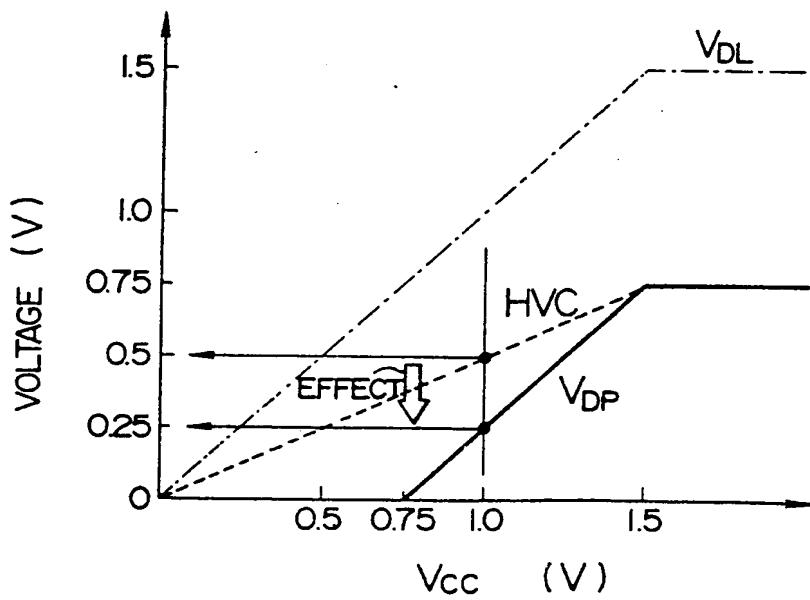


FIG. 75A

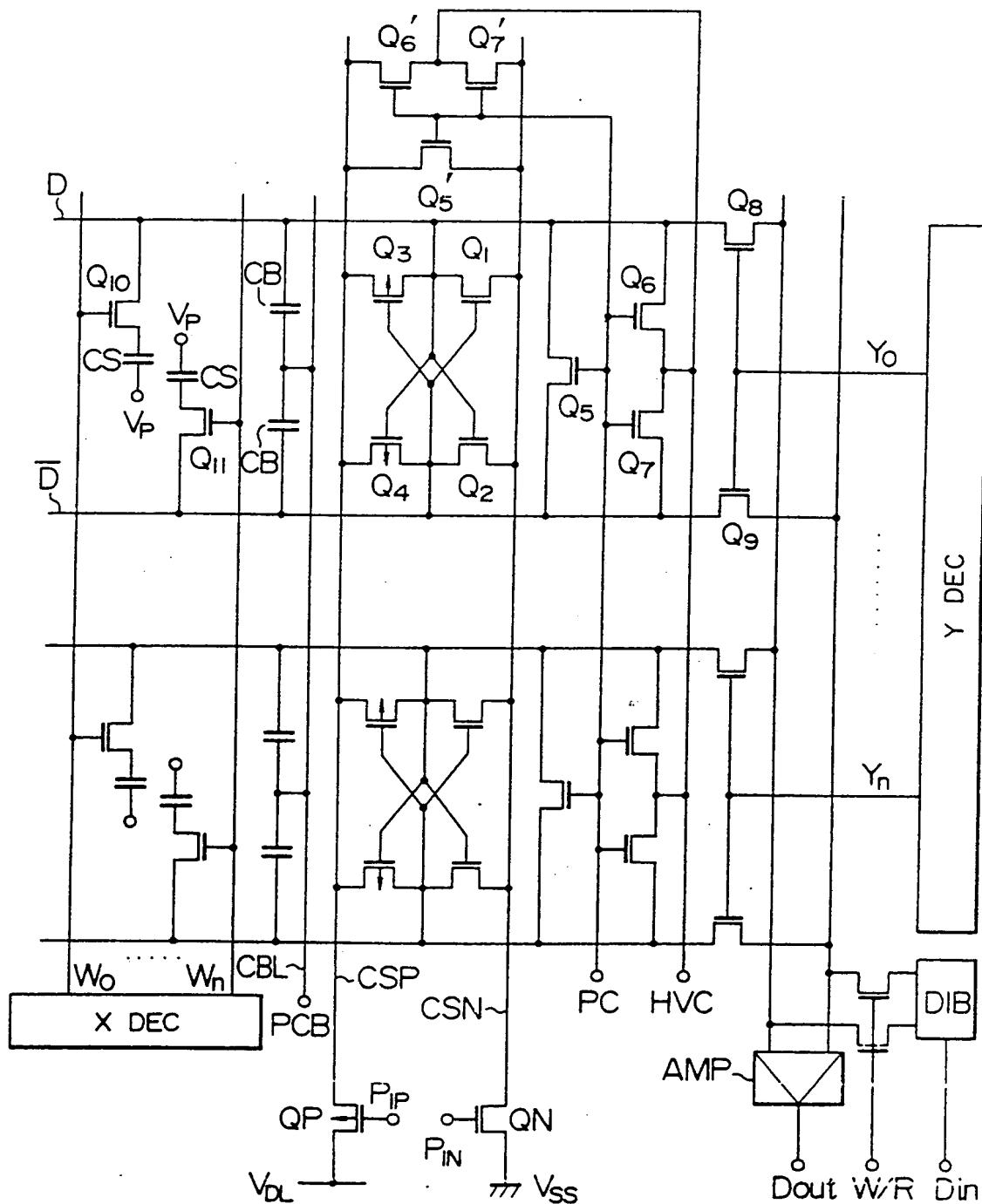


FIG. 75B

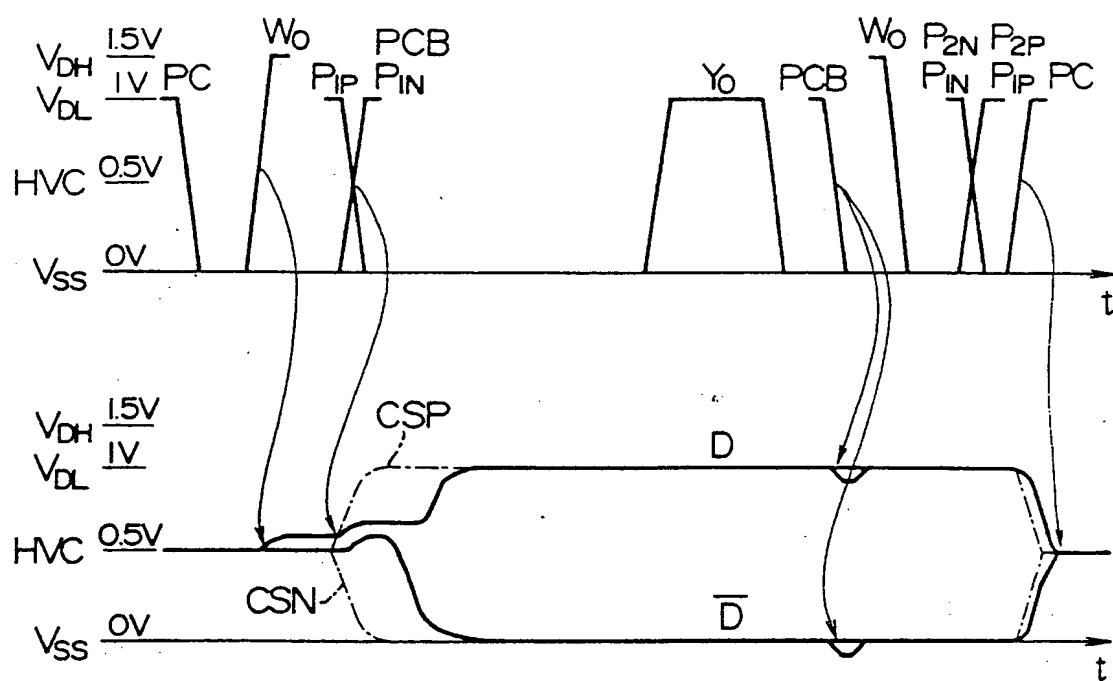


FIG. 76A

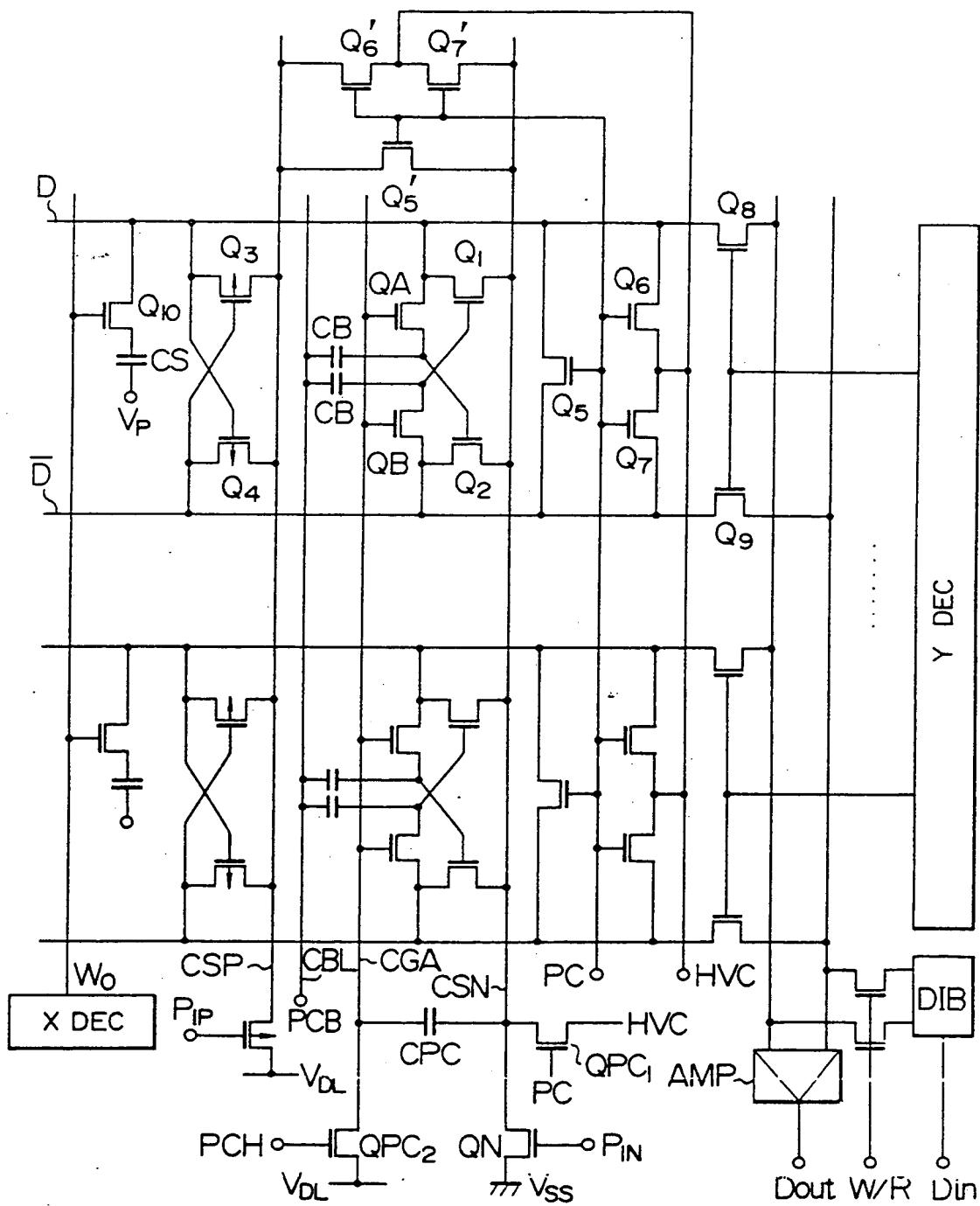


FIG. 76B

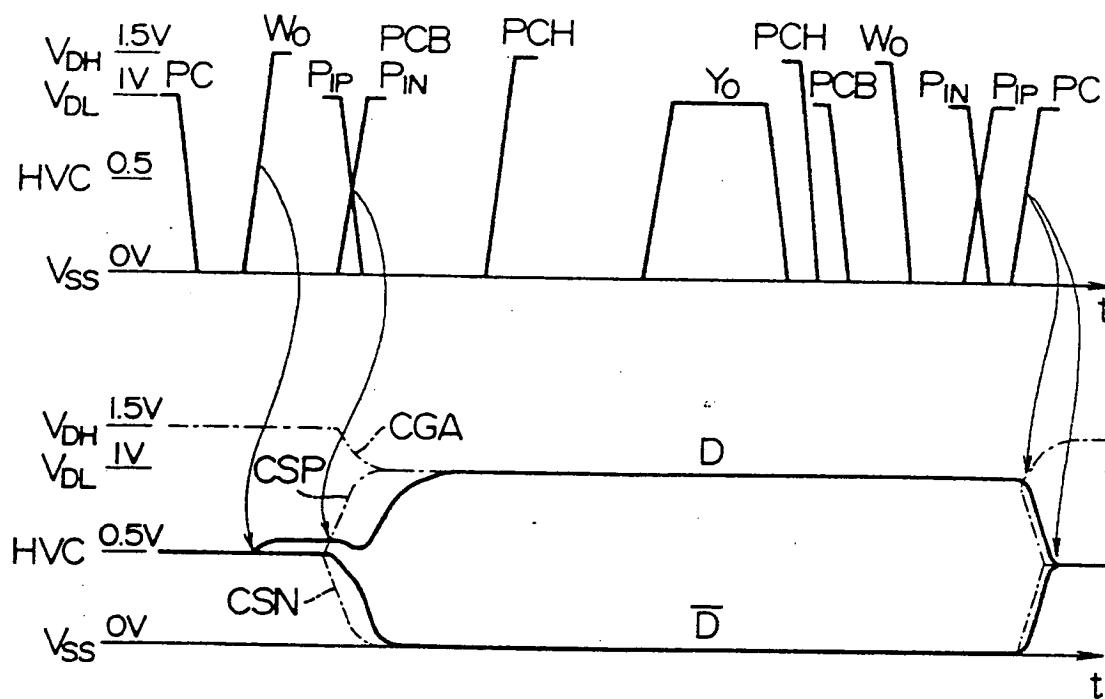


FIG. 77A

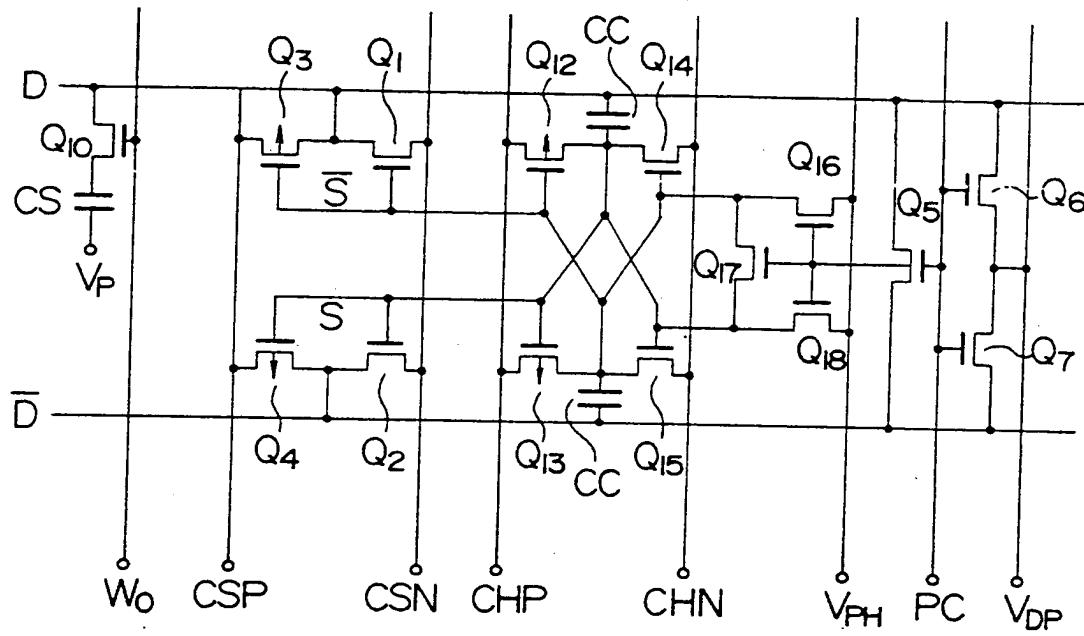


FIG. 77B

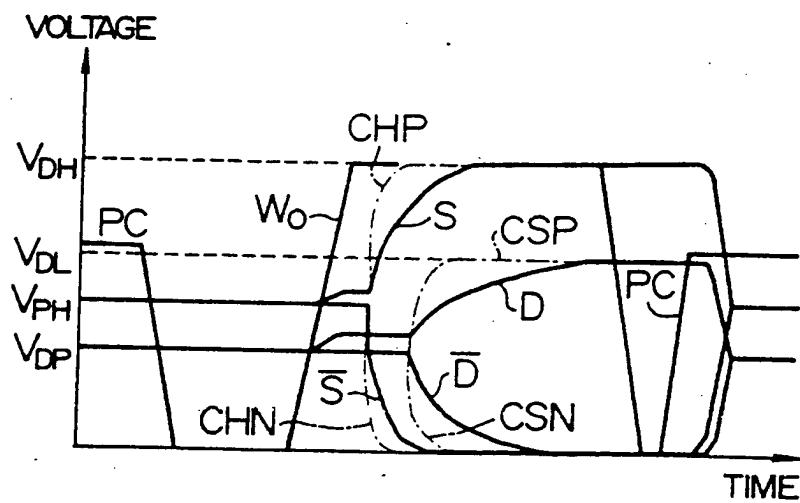


FIG. 78A

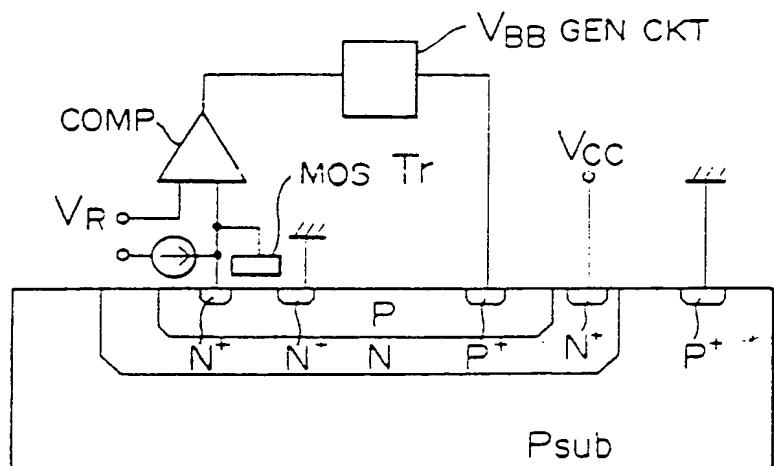


FIG. 78B

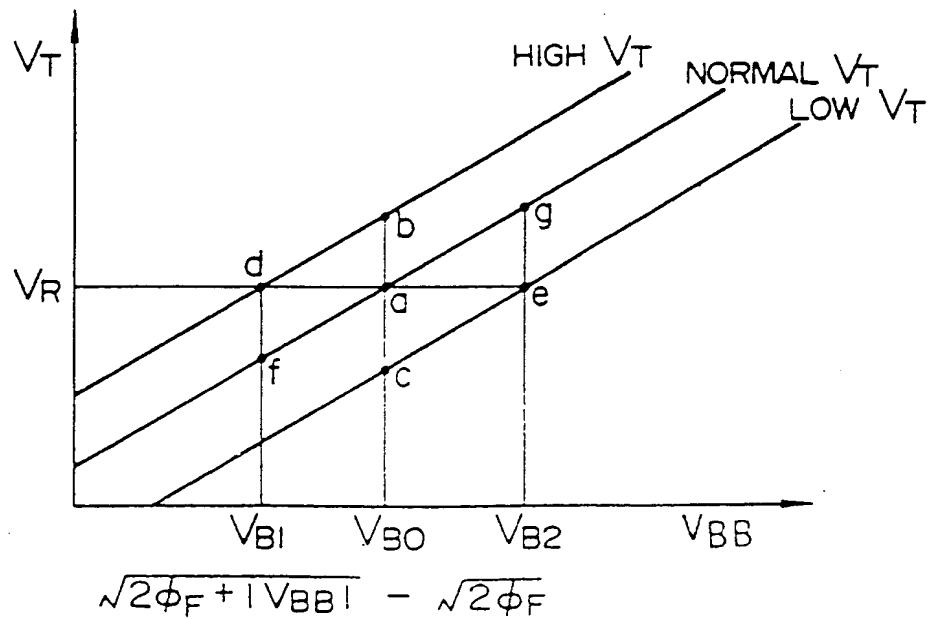


FIG. 78C

